FASSA EPOXY 400 COMP.A

Fișa cu date de securitate din data 14/05/2026 versiunea 3

SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii

1.1. Identificator de produs

Identificarea preparatului:

Nume comercial: FASSA EPOXY 400 COMP.A

Cod comercial: 1224

UFI: 5SYW-1AG4-900W-5Y0A

1.2. Utilizări relevante identificate ale substanței sau ale amestecului și utilizări contraindicate

Utilizarea recomandată: Rășină epoxidică; Numai pentru uz profesional

Utilizări de evitat: Nu este destinat utilizării de către consumator

1.3. Detalii privind furnizorul fișei cu date de securitate

Compania: FASSA Srl

Via Lazzaris, 3 - 31027 Spresiano (TV) - ITALY

Tel. +39 0422 7222

Fax +39 0422 887509

Responsabil: laboratorio.spresiano@fassabortolo.it

1.4. Număr de telefon care poate fi apelat în caz de urgență

+40213183606

SECȚIUNEA 2: Identificarea pericolelor



2.1. Clasificarea substanței sau a amestecului

Regulamentul (CE) nr. 1272/2008 (CLP)

Skin Irrit. 2	Provoacă iritarea pielii.
Eye Irrit. 2	Provoacă o iritare gravă a ochilor.
Skin Sens. 1A	Poate provoca o reacţie alergică a pielii.
Repr. 1B	Poate dăuna fertilităţii.
Aquatic Chronic 2	Toxic pentru mediul acvatic cu efecte pe termen lung.

Efecte fizico-chimice dăunătoare sănătăţii omului şi mediului înconjurător:

Nici un alt risc

2.2. Elemente de etichetare

Regulamentul (CE) nr. 1272/2008 (CLP)

Pictograme de pericol și cuvânt de avertizare



Pericol

Fraze de pericol

H315	Provoacă iritarea pielii.
H317	Poate provoca o reacţie alergică a pielii.
H319	Provoacă o iritare gravă a ochilor.
H360F	Poate dăuna fertilităţii.
H411	Toxic pentru mediul acvatic cu efecte pe termen lung.

Fraze de precauţie

P201	Procuraţi instrucţiuni speciale înainte de utilizare.
P261	Evitați să inspirați praful.
P273	Evitaţi dispersarea în mediu.
P280	Purtaţi mănuşi/echipamente de protecţie şi protejaţi ochii/vederea.
P308+P313	ÎN CAZ DE expunere sau de posibilă expunere: consultaţi medicul.

P391 Colectaţi scurgerile de produs.

Prevederi speciale:

EUH205 Conţine componenţi epoxidici. Poate provoca o reacţie alergică.

Conţine:

Acizi graşi, ulei înalt, compuşi cu oleilamină

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran şi 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran şi 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

bis-[4-(2,3-epoxipropoxi)fenil]propan

1,6-hexandiol diglicidil eter

Dispoziţii speciale conform Anexei XVII (REACH) cu modificările şi completările ulterioare:

Nici una

2.3. Alte pericole

PBT, vPvB sau perturbatori endocrini prezenți în concentrații >= 0,1%:

Componentă	Nr. de Ident.	Cantitate	Proprietăţi:
bis(izopropil) naftalen	CAS: 38640-62-9 - EINECS: 254-052-6	>=0.3 - <0.5 %	PBT, vPvB

Nici un alt risc

SECȚIUNEA 3: Compoziție/informații privind componenții

3.1. Substanțe

N.A.

3.2. Amestecuri

Identificarea preparatului: FASSA EPOXY 400 COMP.A

Componente periculoase în sensul Regulamentului CLP şi clasificarea corespunzătoare:

Cantitate	Nume	Nr. de Ident.	Clasificare	Număr de înregistrare:	Proprietăţi:
≥30 - <50 %	bis-[4-(2,3-epoxipropoxi)fenil]propan	CAS:1675-54-3 EC:216-823-5 Index:603-073-00-2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 Limite de concentrație specifice: 5% ≤ C < 100%: Skin Irrit. 2 H315 5% ≤ C < 100%: Eye Irrit. 2 H319	01-2119456619-26-xxxx	
≥20 - <30 %	amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran şi 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran şi 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran	EC:701-263-0	Skin Irrit. 2, H315; Skin Sens. 1A, H317; Aquatic Chronic 2, H411	01-2119454392-40-xxxx	
≥5 - <10 %	1,6-hexandiol diglicidil eter	CAS:933999-84-9 EC:618-939-5	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Repr. 1B, H360F	01-2119463471-41-xxxx	
≥0.5 - <1 %	dioxid de titan	CAS:13463-67-7 EC:236-675-5 Index:022-006-00-2	Carc. 2, H351	01-2119489379-17-xxxx	
≥0.3 - <0.5 %	bis(izopropil)naftalen	CAS:38640-62-9 EC:254-052-6	Asp. Tox. 1, H304; Aquatic Chronic 1, H410, M-Chronic:1	01-2119565150-48-xxxx	PBT, vPvB
≥0.1 - <0.3 %	acetat de 2-metoxi-1-metiletil	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29-xxxx	
≥0.05 - <0.1 %	Silice cristalină, cuarț (fracție respirabilă)	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	Scutit	
≥0.05 - <0.1 %	Acizi grași, ulei înalt, compuși cu oleilamină	CAS:85711-55-3 EC:288-315-1	Eye Dam. 1, H318; Skin Sens. 1A, H317; STOT RE 2, H373	01-2119974148-28-xxxx	

≥0.05 - <0.1 % acetat de n-butil	CAS:123-86-4 EC:204-658-1 Index:607-025-00-1	Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	01-2119485493-29-xxxx
≥0.005 - <0.025 xilen %	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412 Toxicitate Acută Estimată: ATE - Dermică: 1100mg/kg gc ATE - Inhalare (Vapori): 11mg/l	01-2119488216-32-xxxx
≥0.005 - <0.025 xilen %	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Toxicitate Acută Estimată: ATE - Dermică: 1100mg/kg gc ATE - Inhalare (Vapori): 11mg/l	01-2119488216-32-xxxx
≥0.005 - <0.025 etilbenzen %	CAS:100-41-4 EC:202-849-4 Index:601-023-00-4	Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 3, H412	01-2119489370-35-xxxx
≥0.005 - <0.025 etilbenzen %	CAS:100-41-4 EC:202-849-4 Index:601-023-00-4	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 Asp. Tox. 1, H304 Toxicitate Acută Estimată: ATE - Inhalare (Vapori): 11mg/l	01-2119489370-35-xxxx
≥0.005 - <0.025 butanonă %	CAS:78-93-3 EC:201-159-0 Index:606-002-00-3	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119457290-43-xxxx

SECȚIUNEA 4: Măsuri de prim ajutor

4.1. Descrierea măsurilor de prim ajutor

În caz de contact cu pielea:

Îndepărtaţi imediat hainele contaminate şi eliminaţi-l în mod sigur.

Zonele corpului care au venit, sau se presupune numai că au venit, în contact cu produsul trebuie spălate imediat şi abundent cu apă curentă.

Spălaţi complet corpul (duş sau baie).

În caz de contact cu ochii:

În caz de contact cu ochii, clătiţi cu apă pentru un interval de timp corespunzător şi ţineţi deschise pleoapele, după care consultaţi imediat un oftalmolog.

Protejaţi ochiul lezat.

În caz de ingerare:

Nu provocaţi vomitarea, adresaţi-vă unui medic arătând Fişa de Siguranţă şi eticheta produsului.

În caz de inhalare:

Conduceţi accidentatul la aer liber şi ţineţi-l la cald şi în repaus.

4.2. Cele mai importante simptome și efecte, atât acute, cât și întârziate

Simptomele şi efectele sunt cele preconizate în secIiunea 2 cu privire la pericole.

4.3. Indicații privind orice fel de asistență medicală imediată și tratamentele speciale necesare

În caz de accident sau stare proastă consultaţi imediat un medic (dacă este posibil arătaţi instrucţiunile de folosinţă sau fişa de siguranţă).

SECȚIUNEA 5: Măsuri de combatere a incendiilor

5.1. Mijloace de stingere a incendiilor

Mijloace de stingere corespunzătoare:

CO2, stingătoare cu pulbere, spumă, apă pulverizată.

Mijloace de stingere care nu trebuie să fie utilizate din motive de siguranţă:

Jeturi de apă.

5.2. Pericole speciale cauzate de substanță sau de amestec

Combustia produce fum greu.

Nu inhalați gazele produse prin explozie și/sau prin combustie (monoxid de carbon, dioxid de carbon, oxizi de azot).

5.3. Recomandări destinate pompierilor

Folosiţi dispozitive respiratorii corespunzătoare.

Strângeţi separat apa contaminată folosită pentru stingerea incendiului. Nu o descărcaţi în reţeaua de canalizare.

Dacă este posibil din punct de vedere al siguranţei, îndepărtaţi din zona de pericol imediat recipientele neafectate.

SECȚIUNEA 6: Măsuri împotriva pierderilor accidentale

6.1. Precauții personale, echipament de protecție și proceduri de urgență

Pentru personalul care nu este implicat în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

Duceţi persoanele în loc sigur.

Citiţi măsurile de protecţie prezentate la punctele 7 şi 8.

Pentru personalul care intervine în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

6.2. Precauții pentru mediul înconjurător

Împiedicaţi penetrarea în sol/subsol. Împiedicaţi vărsarea în apele de suprafaţă sau în reţeaua de canalizare.

În caz de scurgere de gaz sau penetrare în cursuri de apă, sol sau sistemul de canalizare, informaţi autorităţile răspunzătoare.

6.3. Metode și material pentru izolarea incendiilor și pentru curățenie

Material corespunzător pentru colectare: material absorbant inert (de exemplu, nisip, vermiculit)

Dupa ce produsul a fost recuperat, clatiti suprafata si materialele folosite cu apa

Reţineţi apa de spălat contaminată şi eliminaţi-o.

6.4. Trimiteri către alte secțiuni

Vezi şi paragrafele 8 şi 13

SECȚIUNEA 7: Manipulare și depozitare

7.1. Precauții pentru manipularea în condiții de securitate

Evitați contactul cu pielea și ochii, precum și inhalarea vaporilor și a ceții.

Nu folosiţi recipiente goale înainte de a fi curăţate.

Înaintea operaţiilor de transfer, asiguraţi-vă că în recipiente nu sunt materiale rezidue incompatibile.

Sfaturi privind igiena generală la locul de muncă:

Hainele contaminate trebuie înlocuite înainte de accesul la zona de prânz.

Nu mincati sau beti in timpul lucrului

Se face trimitere şi la paragraful 8 pentru dispozitivele de protecţie recomandate.

7.2. Condiții de depozitare în condiții de securitate, inclusiv eventuale incompatibilități

Păstrați recipientele bine închise într-un spațiu răcoros și bine ventilat, la distanță de surse de căldură.

Ţineţi departe de alimente, băuturi şi hrană pentru animale.

Materiale incompatibile

Vezi pct. 10.5

Instructiuni privind spatiile de depozitare:

Spatii ventilate adecvat

7.3. Utilizare (utilizări) finală (finale) specifică (specifice)

Recomandări

Vezi pct. 1.2

Soluţii specifice pentru sectorul industrial

Nici o utilizare particulară

SECȚIUNEA 8: Controale ale expunerii/protecția personală

8.1. Parametri de control

Limitele de expunere profesională

dioxid de titan

CAS: 13463-67-7	Tip OEL	ACGIH		Termen lung 0.2 mg/m3 Note: Nanoscale particles - A3 - (R) URT irr, Pneumoconiosis
				Termen lung 2.5 mg/m3 Note: Finescale particles - A3 - (R) URT irr, Pneumoconiosis
	Tip OEL	MAK	Austria	Termen lung 5 mg/m3; Termen scurt 10 mg/m3 Note: Respirable fraction
	Tip OEL	MAK	Germania	Termen lung 0.3 mg/m3; Termen scurt 2.4 mg/m3

				Note: Respirable fraction, except ultrafine particles , Multiplied by the material density
	Tip OEL	VLEP	Belgia	Termen lung 10 mg/m3
	Tip OEL	VLEP	Franţa	Termen lung 11 mg/m3 Note: Inhalable aerosol
	Tip OEL	VLEP	România	Termen lung 10 mg/m3; Termen scurt 15 mg/m3
	Tip OEL	TLV	Bulgaria	Termen lung 10 mg/m3
	Tip OEL	VLA	Spania	Termen lung 10 mg/m3 Note: Inhalable fraction
	Tip OEL	SUVA	Elveţia	Termen lung 3 mg/m3 Note: Respirable aerosol
	Tip OEL	WEL	U.K.	Termen lung 10 mg/m3 Note: Inhalable fraction Termen lung 4 mg/m3 Note: Respirable fraction
	Tip OEL	GVI	Croaţia	Termen lung 10 mg/m3 Note: Inhalable fraction Termen lung 4 mg/m3 Note: Respirable fraction
	Tip OEL	NDS	Polonia	Termen lung 10 mg/m3 Note: Inhalable fraction
	Tip OEL	IPRV	Lituania	Termen lung 5 mg/m3
	Tip OEL	RV	Letonia	Termen lung 10 mg/m3
	Tip OEL	NGV/KGV	Suedia	Termen lung 5 mg/m3 Note: inhalable aerosol
acetat de 2-metoxi-1-metiletil				
CAS: 108-65-6	Tip OEL	UE		Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Germania	Termen lung 270 mg/m3 - 50 ppm; Termen scurt 270 mg/m3 - 50 ppm
	Tip OEL	VLEP	Belgia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
	Tip OEL	VLEP	Franţa	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Italia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	România	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	TLV	Cehia	Termen lung 270 mg/m3 - 49.14 ppm; Termen scurt 550 mg/m3 - 10.01 ppm Note: Skin
	Tip OEL	VLA	Spania	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	ÁK	Ungaria	Termen lung 275 mg/m3; Termen scurt 550 mg/m3
	Tip OEL	MAC	Olanda	Termen lung 550 mg/m3 - 100 ppm
	Tip OEL	VLE	Portugalia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	SUVA	Elveţia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 275 mg/m3 - 50 ppm
	Tip OEL	WEL	U.K.	Termen lung 274 mg/m3 - 50 ppm; Termen scurt 548 mg/m3 - 100 ppm Note: Skin
	Tip OEL	GVI	Croaţia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin

	Tip OEL	AGW	Germania	Termen lung 270 mg/m3 - 50 ppm; Termen scurt 270 mg/m3 - 50 ppm
	Tip OEL	NDS	Polonia	Termen lung 260 mg/m3; Termen scurt 520 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 250 mg/m3 - 50 ppm; Termen scurt 400 mg/m3 - 75 ppm Note: Skin
	Tip OEL	RV	Letonia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin

Silice cristalină, cuarț (fracție respirabilă)

CAS: 14808-60-7	Tip OEL	ACGIH		Termen lung 0.025 mg/m3 Note: (R), A2 - Pulm fibrosis, lung cancer
	Tip OEL	UE		Termen lung 0.1 mg/m3 Note: Respirable dust particles
	Tip OEL	MAK	Austria	Termen lung 0.05 mg/m3 Note: Respirable fraction
	Tip OEL	VLEP	Belgia	Termen lung 0.1 mg/m3 Note: Respirable dust; Additional indication "C" means that the agent falls within the scope of Title 2 concerning carcinogenic, mutagenic and reprotoxic agents of Book VI of the Codex on well-being at work.
	Tip OEL	VLEP	Franţa	Termen lung 0.1 mg/m3 Note: Respirable fraction
	Tip OEL	VLEP	Italia	Termen lung 0.1 mg/m3 Note: Respirable dust particles
	Tip OEL	VLA	Spania	Termen lung 0.05 mg/m3 Note: Respirable fraction
	Tip OEL	ÁK	Ungaria	Termen lung 0.1 mg/m3 Note: Respirable fraction
	Tip OEL	MAC	Olanda	Termen lung 0.075 mg/m3 Note: Respirable fraction
	Tip OEL	SUVA	Elveţia	Termen lung 0.15 mg/m3 Note: Respirable aerosol
	Tip OEL	GVI	Croaţia	Termen lung 0.1 mg/m3
	Tip OEL	AGW	Germania	Termen lung 0.05 mg/m3; Termen scurt 0.4 mg/m3 Note: Respirable fraction
	Tip OEL	NDS	Polonia	Termen lung 0.1 mg/m3 Note: Respirable fraction
	Tip OEL	MV	Slovenia	Termen lung 0.15 mg/m3
	Tip OEL	IPRV	Lituania	Termen lung 0.1 mg/m3
	Tip OEL	NGV/KGV	Suedia	Termen lung 0.1 mg/m3 Note: Respirable fraction

acetat de n-butil

CAS: 123-86-4	Tip OEL	ACGIH		Termen lung 50 ppm; Termen scurt 150 ppm Note: Eye and URT irr
	Tip OEL	UE		Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	MAK	Austria	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 480 mg/m3 - 100 ppm
	Tip OEL	MAK	Germania	Termen lung 480 mg/m3 - 100 ppm; Termen scurt 960 mg/m3 - 200 ppm
	Tip OEL	VLEP	Belgia	Termen lung 238 mg/m3 - 50 ppm; Termen scurt 712 mg/m3 - 150 ppm Note: Butylacetates, all isomers
	Tip OEL	VLEP	Franţa	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	VLEP	Italia	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	VLEP	România	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	TLV	Cehia	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm

	Tip OEL	VLA	Spania	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	ÁK	Ungaria	Termen lung 241 mg/m3; Termen scurt 723 mg/m3
	Tip OEL	MAC	Olanda	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	SUVA	Elveţia	Termen lung 240 mg/m3 - 50 ppm; Termen scurt 720 mg/m3 - 150 ppm
	Tip OEL	WEL	U.K.	Termen lung 724 mg/m3 - 150 ppm; Termen scurt 966 mg/m3 - 200 ppm
	Tip OEL	GVI	Croaţia	Termen lung 724 mg/m3 - 150 ppm; Termen scurt 966 mg/m3 - 200 ppm
	Tip OEL	AGW	Germania	Termen lung 300 mg/m3 - 62 ppm; Termen scurt 600 mg/m3 - 124 ppm
	Tip OEL	NDS	Polonia	Termen lung 240 mg/m3; Termen scurt 720 mg/m3
	Tip OEL	MV	Slovenia	Termen lung 300 mg/m3 - 62 ppm; Termen scurt 600 mg/m3 - 124 ppm
xilen				
CAS: 1330-20-7	Tip OEL	ACGIH		Termen lung 20 ppm Note: A4, BEI - URT and eye irr, CNS impair
	Tip OEL	UE		Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm
	Tip OEL	MAK	Germania	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 440 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Belgia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
	Tip OEL	VLEP	Franţa	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Italia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	România	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	TLV	Cehia	Termen lung 200 mg/m3 - 45.4 ppm; Termen scurt 400 mg/m3 - 90.8 ppm Note: Skin
	Tip OEL	VLA	Spania	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm
	Tip OEL	ÁK	Ungaria	Termen lung 221 mg/m3; Termen scurt 442 mg/m3 Note: Skin
	Tip OEL	MAC	Olanda	Termen lung 210 mg/m3 - 47.5 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLE	Portugalia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	SUVA	Elveţia	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 440 mg/m3 - 100 ppm
	Tip OEL	WEL	U.K.	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 441 mg/m3 - 100 ppm Note: Skin
	Tip OEL	GVI	Croaţia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	AGW	Germania	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 440 mg/m3 - 100 ppm Note: Skin
	Tip OEL	NDS	Polonia	Termen lung 100 mg/m3; Termen scurt 200 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	RV	Letonia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
xilen				
CAS: 1330-20-7	Tip OEL	UE		Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm

				Note: Skin
	Tip OEL	TLV	Cehia	Termen lung 200 mg/m3 - 45.4 ppm; Termen scurt 400 mg/m3 - 90.8 ppm Note: Skin
	Tip OEL	RV	Letonia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm
etilbenzen				
CAS: 100-41-4	Tip OEL	ACGIH		Termen lung 20 ppm Note: A3, BEI - URT irr, kidney dam (nephropathy), cochlear impair
	Tip OEL	UE		Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 440 mg/m3 - 100 ppm; Termen scurt 880 mg/m3 - 200 ppm
	Tip OEL	MAK	Germania	Termen lung 88 mg/m3 - 20 ppm; Termen scurt 176 mg/m3 - 40 ppm Note: Skin
	Tip OEL	VLEP	Belgia	Termen lung 87 mg/m3 - 20 ppm; Termen scurt 551 mg/m3 - 125 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
	Tip OEL	VLEP	Franţa	Termen lung 88.4 mg/m3 - 20 ppm; Termen scurt 442 mg/m3 - 100 ppm
	Tip OEL	VLEP	Italia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm
	Tip OEL	VLEP	România	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm
	Tip OEL	TLV	Cehia	Termen lung 200 mg/m3 - 45.4 ppm; Termen scurt 500 mg/m3 - 113.5 ppm Note: Skin
	Tip OEL	VLA	Spania	Termen lung 441 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	ÁK	Ungaria	Termen lung 442 mg/m3; Termen scurt 884 mg/m3
	Tip OEL	MAC	Olanda	Termen lung 215 mg/m3; Termen scurt 430 mg/m3
	Tip OEL	VLE	Portugalia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	SUVA	Elveţia	Termen lung 435 mg/m3 - 100 ppm; Termen scurt 435 mg/m3 - 100 ppm
	Tip OEL	WEL	U.K.	Termen lung 441 mg/m3 - 100 ppm; Termen scurt 552 mg/m3 - 125 ppm
	Tip OEL	GVI	Croaţia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	AGW	Germania	Termen lung 88 mg/m3 - 20 ppm; Termen scurt 176 mg/m3 - 40 ppm Note: Skin
	Tip OEL	NDS	Polonia	Termen lung 200 mg/m3; Termen scurt 400 mg/m3
	Tip OEL	MV	Slovenia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
etilbenzen				
CAS: 100-41-4	Tip OEL	ACGIH		Termen lung 20 ppm Note: A3, BEI - URT irr, kidney dam (nephropathy), cochlear impair
	Tip OEL	UE		Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 440 mg/m3 - 100 ppm; Termen scurt 880 mg/m3 - 200 ppm Note: Skin
	Tip OEL	MAK	Germania	Termen lung 88 mg/m3 - 20 ppm; Termen scurt 176 mg/m3 - 40 ppm Note: Skin
	Tip OEL	VLEP	Belgia	Termen lung 87 mg/m3 - 20 ppm; Termen scurt 551 mg/m3 - 125 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
	Tip OEL	VLEP	Franţa	Termen lung 88.4 mg/m3 - 20 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Italia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	VLEP	România	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm

	Tip OEL	TLV	Bulgaria	Termen lung 435 mg/m3; Termen scurt 535 mg/m3 Note: Skin
	Tip OEL	TLV	Cehia	Termen lung 200 mg/m3 - 45.4 ppm; Termen scurt 500 mg/m3 - 113.5 ppm Note: Skin
	Tip OEL	VLA	Spania	Termen lung 441 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm
	Tip OEL	ÁK	Ungaria	Termen lung 442 mg/m3; Termen scurt 884 mg/m3 Note: Skin
	Tip OEL	MAC	Olanda	Termen lung 215 mg/m3 - 48.6 ppm; Termen scurt 430 mg/m3 - 97.3 ppm Note: Skin
	Tip OEL	VLE	Portugalia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	SUVA	Elveţia	Termen lung 435 mg/m3 - 100 ppm; Termen scurt 435 mg/m3 - 100 ppm
	Tip OEL	WEL	U.K.	Termen lung 441 mg/m3 - 100 ppm; Termen scurt 552 mg/m3 - 125 ppm Note: Skin
	Tip OEL	GVI	Croaţia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	AGW	Germania	Termen lung 88 mg/m3 - 20 ppm; Termen scurt 176 mg/m3 - 40 ppm Note: Skin
	Tip OEL	NDS	Polonia	Termen lung 200 mg/m3; Termen scurt 400 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
butanonă				
CAS: 78-93-3	Tip OEL	ACGIH		Termen lung 75 ppm; Termen scurt 150 ppm Note: BEI Skin - URT irr, CNS and PNS impair
	Tip OEL	UE		Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	MAK	Austria	Termen lung 295 mg/m3 - 100 ppm; Termen scurt 590 mg/m3 - 200 ppm Note: Skin
	Tip OEL	MAK	Germania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 600 mg/m3 - 200 ppm Note: Skin
	Tip OEL	VLEP	Belgia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLEP	Franţa	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLEP	Italia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLEP	România	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 590 mg/m3; Termen scurt 885 mg/m3
	Tip OEL	TLV	Cehia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLA	Spania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	ÁK	Ungaria	Termen lung 600 mg/m3; Termen scurt 900 mg/m3 Note: Skin
	Tip OEL	MAC	Olanda	Termen lung 590 mg/m3 - 197 ppm; Termen scurt 900 mg/m3 - 300 ppm Note: Skin
	Tip OEL	VLE	Portugalia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	SUVA	Elveţia	Termen lung 590 mg/m3 - 200 ppm; Termen scurt 590 mg/m3 - 200 ppm
	Tip OEL	WEL	U.K.	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 899 mg/m3 - 300 ppm Note: Skin
	Tip OEL	GVI	Croaţia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	AGW	Germania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 600 mg/m3 - 200 ppm Note: Skin 15
	Tip OEL	NDS	Polonia	Termen lung 450 mg/m3; Termen scurt 900 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm Note: Skin

Tip OEL	IPRV	Lituania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3

Valori limită de expunere PNEC

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3
- Cale de expunere: Apă dulce; PNEC Limită: 0.006 mg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.001 mg/l
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.341 mg/kg
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.034 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 0.065 mg/kg
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran
- Cale de expunere: Apă dulce; PNEC Limită: 0.003 mg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.0003 mg/l
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.0294 mg/kg
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.294 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 0.237 mg/kg

1,6-hexandiol diglicidil eter

CAS: 933999-84-9
- Cale de expunere: Apă dulce; PNEC Limită: 0.011 mg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.001 mg/l
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 1 mg/l
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.283 mg/kg
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.028 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 0.223 mg/kg

bis(izopropil)naftalen

CAS: 38640-62-9
- Cale de expunere: Apă dulce; PNEC Limită: 0.236 µg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.023 µg/l
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.853 mg/kg
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.085 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 0.171 mg/kg
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 0.15 mg/l

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6
- Cale de expunere: Apă dulce; PNEC Limită: 0.635 mg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.064 mg/l
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 100 mg/l
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 3.29 mg/kg
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.329 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 0.29 mg/kg

acetat de n-butil

CAS: 123-86-4
- Cale de expunere: Apă sărată; PNEC Limită: 0.018 mg/l
- Cale de expunere: Apă dulce; PNEC Limită: 0.18 mg/l
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.098 mg/kg
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.981 mg/kg
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 35.6 mg/l
- Cale de expunere: Sol (agricol); PNEC Limită: 0.09 mg/kg

xilen

CAS: 1330-20-7
- Cale de expunere: Apă sărată; PNEC Limită: 0.327 mg/l
- Cale de expunere: Apă dulce; PNEC Limită: 0.327 mg/l
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 6.58 mg/l
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 12.46 mg/kg
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 12.46 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 2.31 mg/kg

etilbenzen

CAS: 100-41-4 Cale de expunere: Apă dulce; PNEC Limită: 0.1 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.01 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 9.6 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 13.7 mg/kg

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 1.37 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 2.68 mg/kg

etilbenzen

CAS: 100-41-4 Cale de expunere: Apă dulce; PNEC Limită: 0.1 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.01 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 9.6 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 13.7 mg/kg

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 1.37 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 2.68 mg/kg

butanonă

CAS: 78-93-3 Cale de expunere: Apă dulce; PNEC Limită: 55.8 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 55.8 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 284.74 mg/kg

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 709 mg/l

Cale de expunere: Lanț alimentar; PNEC Limită: 1000 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 22.5 mg/kg

Nivel Derivat Fără Efect (DNEL)

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 0.75 mg/kg; Consumator: 0.089 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 4.93 mg/m3; Consumator: 0.87 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 0.5 mg/kg

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 104.15 mg/kg; Consumator: 62.5 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 0.0083 mg/cm2

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 29.39 mg/m3; Consumator: 8.7 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 6.25 mg/kg

1,6-hexandiol diglicidil eter

CAS: 933999-84-9 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 10.57 mg/m3; Consumator: 5.29 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 6 mg/kg; Consumator: 3 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 1.5 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător: 10.57 mg/m3; Consumator: 5.29 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 1.7 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 1.5 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale

Lucrător: 0.44 mg/m3; Consumator: 0.27 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător: 0.022 mg/kg; Consumator: 0.013 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 0.022 mg/kg; Consumator: 0.013 mg/kg

bis(izopropil)naftalen

CAS: 38640-62-9 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 30 mg/m3; Consumator: 7.4 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 4.3 mg/kg; Consumator: 2.1 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 2.1 mg/kg

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 796 mg/kg; Consumator: 320 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 36 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 500 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 275 mg/m3; Consumator: 33 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 550 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Consumator: 33 mg/m3

Acizi graşi, ulei înalt, compuşi cu oleilamină

CAS: 85711-55-3 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 0.024 mg/kg; Consumator: 0.012 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 0.012 mg/kg

acetat de n-butil

CAS: 123-86-4 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 300 mg/m3; Consumator: 35.7 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător: 600 mg/m3; Consumator: 300 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător: 300 mg/m3; Consumator: 35.7 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 600 mg/m3; Consumator: 300 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 11 mg/kg; Consumator: 6 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător: 11 mg/kg; Consumator: 6 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 2 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 2 mg/kg

xilen

CAS: 1330-20-7 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 221 mg/m3; Consumator: 65.3 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător profesionist: 442 mg/m3; Consumator: 260 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 442 mg/m3; Consumator: 260 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător profesionist: 221 mg/m3; Consumator: 65.3 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 212 mg/kg; Consumator: 125 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 12.5 mg/kg

etilbenzen

CAS: 100-41-4 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 77 mg/m3; Consumator: 15 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 293 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 180 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 1.6 mg/kg

etilbenzen

CAS: 100-41-4 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 77 mg/m3; Consumator: 15 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător profesionist: 293 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 180 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 1.6 mg/kg

butanonă

CAS: 78-93-3 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 600 mg/m3; Consumator: 106 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 1161 mg/kg; Consumator: 412 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 31 mg/kg

8.2. Controale ale expunerii

Asigurați o ventilație adecvată. Atunci când este rezonabil posibil, aceasta se poate obține prin utilizarea de ventilație de schimb și a unei aspirații generale bune.

Protectia ochilor

Ochelari cu protecție laterală (EN 16321).

Protectia pielii

Utilizați îmbrăcăminte corespunzătoare pentru protecția completă a pielii, în funcție de activitate și expunere (EN 14605/EN 13982), de exemplu salopetă de lucru, șorț, încălțăminte de siguranță, îmbrăcăminte corespunzătoare.

Protectia mainilor

Nu există niciun material sau combinație de materiale pentru mănuși care să poată garanta o rezistență nelimitată la orice produs chimic sau combinație de produse.

Pentru manipulare prelungită sau repetată, utilizați mănuși rezistente la produse chimice.

Tipul de mănuși adecvate (EN 374/EN 16523); FKM (fluor cauciuc): grosime >= 0.4 mm; timp de penetrare >= 480 min. NBR (cauciuc nitrilic): grosime >= 0.4 mm; timp de penetrare >= 480 min

Alegerea mănușilor potrivite nu depinde numai de material, ci și de alte caracteristici de calitate care variază de la un producător la altul, precum și de metodele și timpii de utilizare a amestecului.

Protectie respiratorie

Dacă lucrătorii sunt expuși la concentrații mai mari decât limitele de expunere, trebuie să poarte aparate respiratorii certificate.

Filtru amestec (EN 14387): mască cu filtru A-P2.

Controale de expunere ambientală:

Vezi pct. 6.2

Măsurile de igienă și tehnice

Vezi alineatul 7.

SECȚIUNEA 9: Proprietățile fizice și chimice

9.1. Informații privind proprietățile fizice și chimice de bază

Stare fizică: Lichid

Aspect: Vâscos

Culoare: gri

Miros: caracteristic

Punctul de topire/punctul de înghețare: N.D.

Punctul de fierbere sau punctul inițial de fierbere și intervalul de fierbere: N.D.

Inflamabilitatea: N.A.

Limita inferioară și superioară de explozie: N.D.

Punctul de aprindere: > 93°C

Temperatura de autoaprindere: N.D.

Temperatura de descompunere: N.A.

pH: N.A.

Viscozitatea cinematică: N.A.

Solubilitatea in apa: Insolubil

Solubilitate în ulei: N.A.

Coeficientul de partiție n-octanol/apă (valoarea log): N.A.

Presiunea vaporilor: N.D.

Densitatea și/sau densitatea relativă: 1.40 kg/l (Metoda internă)

Densitatea relativă a vaporilor: N.D. N.A.

Caracteristicile particulei:

Dimensiunea particulei: N.A.

9.2. Alte informații

Proprietati explozive: N.A. (Evaluare internă)

Proprietati oxidante: N.A. (Evaluare internă)

SECȚIUNEA 10: Stabilitate și reactivitate

10.1. Reactivitate

Stabilă în condiţii normale

10.2. Stabilitate chimică

Stabilă în condiţii normale

10.3. Posibilitatea de reacții periculoase

Se poate aprinde in contact cu agenti puternic oxidanti

Din cauza efectului căldurii sau în caz de incendiu, se pot elibera oxizi de carbon și vapori care pot fi dăunători pentru sănătate.

10.4. Condiții de evitat

Evitați apropierea de surse de căldură.

10.5. Materiale incompatibile

Agenți de oxidare puternici, agenți de reducere puternici, amine alifatice și aromatice.

Vezi pct. 10.3

10.6. Produși de descompunere periculoși

În cazul depozitării și manipulării adecvate, nu există produse de descompunere periculoase.

Vezi pct. 5.2

SECȚIUNEA 11: Informații toxicologice

11.1. Informații privind clasele de pericol definite în Regulamentul (CE) nr. 1272/2008

Rasina epoxi lichida continuta de acest material produse doar iritari minore ale pielii. Oricum, toate rasinile epoxi sunt capabile sa produca sensibilizarea pielii. Susceptibilitatea la sensibilizare si iritare a pielii difera de la persoana la persoana

La indivizii sensibilizati dermatita alergica poatesa nu apara decat la cateva zile sau saptamani dupa contactul frecvent sau prelungit. De aceea, chiar daca potentialul de iritare al pielii este scazut, contactul cu pielea trebuie evitat

Odata sensibilitatea instalata, expunerea pielii la cantitati foarte mici de material poate cauza eritem sau edem

Informații toxicologice ale produsului:

a) toxicitate acută	Neclasificat Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
b) corodarea/iritarea pielii	Produsul este clasificat: Skin Irrit. 2(H315)
c) lezarea gravă/iritarea ochilor	Produsul este clasificat: Eye Irrit. 2(H319)
d) sensibilizarea căilor respiratorii sau a pielii	Produsul este clasificat: Skin Sens. 1A(H317)
e) mutagenitatea celulelor germinative	Neclasificat

	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
f) cancerogenitatea	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
g) toxicitatea pentru reproducere	Produsul este clasificat: Repr. 1B(H360)
h) STOT (toxicitate asupra organelor țintă specifice) - expunere unică	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
i) STOT (toxicitate asupra organelor țintă specifice) - expunere repetată	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
j) pericol prin aspirare	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

Informații toxicologice referitoare la substanțele principale găsite în acest produs:

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3	a) toxicitate acută	LD50 Oral Șobolan > 2000 mg/kg
		LD50 Piele Șobolan > 2000 mg/kg

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

	a) toxicitate acută	LD50 Piele Șobolan > 2000 mg/kg
		LD50 Oral Șobolan > 5000 mg/kg

1,6-hexandiol diglicidil eter

CAS: 933999-84-9	a) toxicitate acută	LD50 Oral Șobolan 2189 mg/kg
		LD50 Piele Șobolan > 2000 mg/kg

dioxid de titan

CAS: 13463-67-7	a) toxicitate acută	LD50 Oral Șobolan > 5000 mg/kg
		LC50 Praf de inhalare Șobolan > 6.82 mg/l 4h

bis(izopropil)naftalen

CAS: 38640-62-9	a) toxicitate acută	LD50 Oral Șobolan > 4000 mg/kg
		LC50 Piele Șobolan > 4000 mg/kg
		LC50 Inhalări de aerosoli Șobolan > 5.6 mg/l

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6	a) toxicitate acută	LD50 Oral Șobolan > 5000 mg/kg
		LD50 Piele Iepure > 5000 mg/kg
		LC0 Vapori de inhalare Șobolan > 4345 ppm 6h

Acizi grași, ulei înalt, compuși cu oleilamină

CAS: 85711-55-3	a) toxicitate acută	LD50 Oral Șobolan > 2000 mg/kg

acetat de n-butil

CAS: 123-86-4	a) toxicitate acută	LD50 Oral Șobolan 10760 mg/kg
		LD50 Piele Iepure 14112 mg/kg
		LC50 Vapori de inhalare Șobolan > 21.1 mg/l 4h

xilen

CAS: 1330-20-7	a) toxicitate acută	ATE - Dermică: 1100 mg/kg gc
		ATE - Inhalare (Vapori): 11 mg/l
		LD50 Oral Șobolan 3523 mg/kg

xilen

CAS: 1330-20-7	a) toxicitate acută	ATE - Dermică: 1100 mg/kg gc
		ATE - Inhalare (Vapori): 11 mg/l

etilbenzen

CAS: 100-41-4	a) toxicitate acută	LD50 Oral Șobolan 3500 mg/kg
		LD50 Piele Iepure 15400 mg/kg

LC50 Inhalare Șobolan 17629 mg/m3 4h

etilbenzen

CAS: 100-41-4 a) toxicitate acută ATE - Inhalare (Vapori): 11 mg/l
LD50 Oral Șobolan 3500 mg/kg
LD50 Piele Iepure 15400 mg/kg

butanonă

CAS: 78-93-3 a) toxicitate acută LD50 Oral Șobolan > 2193 mg/kg
LD50 Piele Iepure > 5000 mg/kg

11.2. Informații privind alte pericole

Proprietăți de perturbator endocrin:

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

SECȚIUNEA 12: Informații ecologice

A se adopta bune practici de productie astfel incat produsul sa nu fie eliberat in mediu

12.1. Toxicitate

Informaţii Ecotoxicologice:

Toxic pentru mediul acvatic cu efecte pe termen lung.

Lista proprietatilor Eco-toxicologice ale produsului

Produsul este clasificat: Aquatic Chronic 2(H411)

Lista componentelor cu proprietăţi ecotoxicologice

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 a) Toxicitate acvatică acută: EC50 Daphnia 1.8 mg/l 48h
a) Toxicitate acvatică acută: LC50 Pește 2 mg/l 96h
a) Toxicitate acvatică acută: EC50 Alge 11 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 0.3 mg/l 21d

amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran

a) Toxicitate acvatică acută: LC50 Pește 2.54 mg/l 96h
a) Toxicitate acvatică acută: EC50 Alge 1.8 mg/l 72h
a) Toxicitate acvatică acută: EC50 Daphnia 2.55 mg/l 48h
b) Toxicitatea acvatică cronică: NOEC Daphnia 0.3 mg/l - 21d

1,6-hexandiol diglicidil eter

CAS: 933999-84-9 a) Toxicitate acvatică acută: LC50 Pește 30 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 47 mg/l 48h

dioxid de titan

CAS: 13463-67-7 a) Toxicitate acvatică acută: LC50 Pește > 1000 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia > 1000 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 61 mg/l 72h

bis(izopropil)naftalen

CAS: 38640-62-9 a) Toxicitate acvatică acută: LC0 Pește 0.5 mg/l 96h
a) Toxicitate acvatică acută: EC0 Daphnia 0.16 mg/l 48h
a) Toxicitate acvatică acută: EC0 Alge 0.15 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 0.013 mg/l 21d

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 a) Toxicitate acvatică acută: LC50 Pește 134 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 408 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge > 1000 mg/l 96h
b) Toxicitatea acvatică cronică: NOEC Pește 47.5 mg/l - 14 d

Acizi grași, ulei înalt, compuși cu oleilamină

CAS: 85711-55-3 a) Toxicitate acvatică acută: LC50 Pește 15.2 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia > 100 mg/l 48h

acetat de n-butil

CAS: 123-86-4 a) Toxicitate acvatică acută: LC50 Pește 18 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 44 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 675 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 23 mg/l - 21d

etilbenzen
CAS: 100-41-4 a) Toxicitate acvatică acută: LC50 Pește 4.2 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 1.8 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 3.6 mg/l 96h
b) Toxicitatea acvatică cronică: NOEC Daphnia 1 mg/l - 7d

etilbenzen
CAS: 100-41-4 a) Toxicitate acvatică acută: LC50 Pește 4.2 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 1.8 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 3.6 mg/l 96h
b) Toxicitatea acvatică cronică: NOEC Daphnia 1 mg/l - 7d

butanonă
CAS: 78-93-3 a) Toxicitate acvatică acută: LC50 Pește 2973 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 308 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 1229 mg/l 96h

12.2. Persistență și degradabilitate

bis-[4-(2,3-epoxipropoxi)fenil]propan
CAS: 1675-54-3 Degradabil în mod lent

acetat de 2-metoxi-1-metiletil
CAS: 108-65-6 Degradabil în mod rapid

acetat de n-butil
CAS: 123-86-4 Degradabil în mod rapid

xilen
CAS: 1330-20-7 Degradabil în mod rapid

xilen
CAS: 1330-20-7 Degradabil în mod rapid

etilbenzen
CAS: 100-41-4 Degradabil în mod rapid

etilbenzen
CAS: 100-41-4 Degradabil în mod rapid

butanonă
CAS: 78-93-3 Degradabil în mod rapid

12.3. Potențial de bioacumulare

bis-[4-(2,3-epoxipropoxi)fenil]propan
CAS: 1675-54-3 Nu este supus bioacumulării

dioxid de titan
CAS: 13463-67-7 Nu este supus bioacumulării

xilen
CAS: 1330-20-7 Nu este supus bioacumulării

xilen
CAS: 1330-20-7 Nu este supus bioacumulării

12.4. Mobilitate în sol

bis-[4-(2,3-epoxipropoxi)fenil]propan

CAS: 1675-54-3 Test: Log Koc; Valoare: 2.650

dioxid de titan

CAS: 13463-67-7 Imobil

acetat de n-butil

CAS: 123-86-4 Test: Log Koc; Valoare: 1.300

xilen

CAS: 1330-20-7 Test: Log Koc; Valoare: 2.730

xilen

CAS: 1330-20-7 Test: Log Koc; Valoare: 2.730

12.5. Rezultatele evaluărilor PBT și vPvB

Lista componentelor cu proprietăţi ecotoxicologice

bis(izopropil)naftalen

CAS: 38640-62-9 >=0.3 - <0.5 % PBT - vPvB

12.6. Proprietăți de perturbator endocrin

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

12.7. Alte efecte adverse

N.A.

SECȚIUNEA 13: Considerații privind eliminarea

13.1. Metode de tratare a deșeurilor

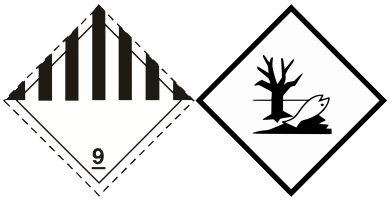
A se recupera, daca este posibil. A se trimite catre punctele de depozitare sau de incinerare, in conditii controlate. A se respecta regulamentele locale in vigoare

Nu permiteți pătrunderea produsului în sistemul de canalizare sau în cursurile de apă.

Recipientele contaminate cu produs, în conformitate cu dispozițiile legale locale sau naționale.

Odată ce produsul a expirat, acesta trebuie eliminat în conformitate cu reglementările în vigoare.

SECȚIUNEA 14: Informații referitoare la transport



14.1. Numărul ONU sau numărul de identificare

3082

14.2. Denumirea corectă ONU pentru expediție

ADR-Nume transport îmbarcare: MATERIE PERICULOASĂ DIN PUNCT DE VEDERE AL MEDIULUI, LICHIDĂ, N.D. (bis-[4-(2,3-epoxipropoxi)fenil]propan - amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran)

IATA-Nume transport îmbarcare: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)fenil]propan - amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran)

IMDG-Nume transport îmbarcare: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)fenil]propan - amestec de: 2,2'-[metilenbis(4,1-fenilenoximetilen)]dioxiran și 2-({2-[4-(oxiran-2-ilmetoxi)]fenoxi})oxiran și 2,2'-[metilenbis(2,1-fenilenoximetilen)]dioxiran)

14.3. Clasa (clasele) de pericol pentru transport

ADR-clasa: 9

IATA-Clasa: 9

IMDG-Clasa: 9

14.4. Grupul de ambalare

ADR-Grup Ambalare: III

IATA-Grup Ambalare: III

IMDG-Grup Ambalare: III

14.5. Pericole pentru mediul înconjurător

Poluant marin: Da

Poluant ambiental: Da

IMDG-EMS: F-A, S-F

14.6. Precauții speciale pentru utilizatori

Drumuri şi Căi Ferate (ADR-RID):

ADR-Etichetă: 9

ADR - Număr de identificare a pericolului: 90

ADR-Dispoziţii Speciale: 274 335 375 601

ADR-Cod de restricţie în tunel:

Aer (IATA):

IATA-Aeronavă de pasagerit: 964

IATA-Aeronavă de marfă: 964

IATA-Etichetă: 9

IATA-Riscul secundar: -

IATA-Erg: 9L

IATA-Dispoziţii Speciale: A97 A158 A197 A215

Mare (IMDG):

IMDG-Depozitare și manipulare: Category A

IMDG-Segregare: -

IMDG-Riscul secundar: -

IMDG-Dispoziţii Speciale: 274 335 969

14.7. Transportul maritim în vrac în conformitate cu instrumentele OMI

N.A.

SECȚIUNEA 15: Informații de reglementare

15.1. Regulamente/legislație în domeniul securității, al sănătății și al mediului specifice (specifică) pentru substanța sau amestecul în cauză

Directiva 98/24/CE (Riscuri în legătură cu agenţii chimici la locul de muncă)

Directiva 2000/39/CE (Valori limită a expunerii profesionale)

Directiva 2010/75/UE

Regulamentul (CE) nr. 1907/2006 (REACH)

Regulamentul (CE) nr. 1272/2008 (CLP)

Regulamentul (CE) nr. 790/2009 (ATP 1 CLP) și (EU) nr. 758/2013

Regulamentul (EU) nr. 2020/878

Regulamentul (EU) nr. 286/2011 (ATP 2 CLP)

Regulamentul (EU) nr. 618/2012 (ATP 3 CLP)

Regulamentul (EU) nr. 487/2013 (ATP 4 CLP)

Regulamentul (EU) nr. 944/2013 (ATP 5 CLP)

Regulamentul (EU) nr. 605/2014 (ATP 6 CLP)

Regulamentul (EU) nr. 2015/1221 (ATP 7 CLP)

Regulamentul (EU) nr. 2016/918 (ATP 8 CLP)

Regulamentul (EU) nr. 2016/1179 (ATP 9 CLP)

Regulamentul (EU) nr. 2017/776 (ATP 10 CLP)

Regulamentul (EU) nr. 2018/669 (ATP 11 CLP)

Regulamentul (EU) nr. 2018/1480 (ATP 13 CLP)

Regulamentul (EU) nr. 2019/521 (ATP 12 CLP)

Regulamentul (EU) nr. 2020/217 (ATP 14 CLP)

Regulamentul (EU) nr. 2020/1182 (ATP 15 CLP)

Regulamentul (EU) nr. 2021/643 (ATP 16 CLP)

Regulamentul (EU) nr. 2021/849 (ATP 17 CLP)

Regulamentul (EU) nr. 2022/692 (ATP 18 CLP)

Regulamentul (UE) nr. 2023/707

Regulamentul (EU) nr. 2023/1434 (ATP 19 CLP)

Regulamentul (EU) nr. 2023/1435 (ATP 20 CLP)

Regulamentul (EU) nr. 2024/197 (ATP 21 CLP)

Regulamentul (EU) nr. 2024/2564 (ATP 22 CLP)

Regulamentul (EU) nr. 2024/2865

Regulamentul (EU) nr. 2025/1222 (ATP 23 CLP)

Restricţii referitoare la produsele sau substanţele conţinute de acestea conform Anexei XVII Regulamentul (CE) 1907/2006 (REACH) cu modificările ulterioare:

Restricții referitoare la produs: 3

Restricții referitoare la substanțele conținute: 40, 75

Dispoziții în legătură cu directiva EU 2012/18 (Seveso III):

Categoria Seveso III conform Anexei 1, partea 1	Limită nivel inferior (tone)	Limită nivel superior (tone)

Produsul face parte din categoria: E2	200	500

Regulamentul (UE) nr. 649/2012 (Regulamentul PIC)

Nu există substanțe menționate

Clasa Germană a Periculozităţii Apei

Clasa 2: periculos pentru ape.

Substanţe SVHC:

În baza datelor disponibile, produsul nu conţine substanţe SVHC în procentaj ≥ de 0.1%.

15.2. Evaluarea securității chimice

Nu a fost efectuată nici o Evaluare de Securitate Chimică pentru amestecul. Consultați scenariile de expunere ale substanțelor anexate acestei fișe de securitate. La consultarea scenariilor, luați în considerare eventualele limitări de utilizare indicate în secțiunea 1.2.

SECȚIUNEA 16: Alte informații

Cod	Descriere
EUH066	Expunerea repetată poate provoca uscarea sau crăparea pielii.
H225	Lichid şi vapori foarte inflamabili.
H226	Lichid şi vapori inflamabili.
H304	Poate fi mortal în caz de înghiţire şi de pătrundere în căile respiratorii.
H312	Nociv în contact cu pielea.
H315	Provoacă iritarea pielii.
H317	Poate provoca o reacţie alergică a pielii.
H318	Provoacă leziuni oculare grave.
H319	Provoacă o iritare gravă a ochilor.
H332	Nociv în caz de inhalare.
H335	Poate provoca iritarea căilor respiratorii.
H336	Poate provoca somnolenţă sau ameţeală.
H351	Susceptibil de a cauza cancer dacă este inhalat.
H360F	Poate dăuna fertilităţii.
H372	Provoacă daune organelor în caz de expunere îndelungată sau repetată prin inhalare.
H373	Poate provoca leziuni ale organelor în caz de expunere prelungită sau repetată.
H373	Poate provoca daune organelor în caz de expunere îndelungată sau repetată prin inghiţire.
H373	Poate provoca daune organelor în caz de expunere îndelungată sau repetată prin inhalare şi prin inghiţire.
H410	Foarte toxic pentru mediul acvatic cu efecte pe termen lung.
H411	Toxic pentru mediul acvatic cu efecte pe termen lung.
H412	Nociv pentru mediul acvatic cu efecte pe termen lung.

Cod	Clasa de pericol şi categoria de pericol	Descriere
2.6/2	Flam. Liq. 2	Lichid inflamabil, Categoria 2
2.6/3	Flam. Liq. 3	Lichid inflamabil, Categoria 3
3.1/4/Dermal	Acute Tox. 4	Toxicitate acută (dermică), Categoria 4
3.1/4/Inhal	Acute Tox. 4	Toxicitate acută (inhalare), Categoria 4
3.10/1	Asp. Tox. 1	Pericol prin aspirare, Categoria 1
3.2/2	Skin Irrit. 2	Iritarea pielii, Categoria 2
3.3/1	Eye Dam. 1	Lezarea gravă a ochilor, Categoria 1
3.3/2	Eye Irrit. 2	Iritarea ochilor, Categoria 2
3.4.2/1	Skin Sens. 1	Sensibilizarea pielii, Categoria 1
3.4.2/1A	Skin Sens. 1A	Sensibilizarea pielii, Categoria 1A
3.6/2	Carc. 2	Cancerigenitate, Categoria 2
3.7/1B	Repr. 1B	Toxicitate pentru reproducere, Categoria 1B
3.8/3	STOT SE 3	Toxicitate asupra unui organ ţintă specific – o singură expunere, Categoria 3
3.9/1	STOT RE 1	Toxicitate asupra unui organ ţintă specific – expunere repetată, Categoria 1
3.9/2	STOT RE 2	Toxicitate asupra unui organ ţintă specific – expunere repetată,

		Categoria 2
4.1/C1	Aquatic Chronic 1	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 1
4.1/C2	Aquatic Chronic 2	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 2
4.1/C3	Aquatic Chronic 3	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 3

Clasificarea și procedura utilizate pentru realizarea clasificării pentru amestecuri în conformitate cu Regulamentul (CE) nr. 1272/2008 [CLP]:

Clasificare conform Regulamentului (CE) nr. 1272/2008	Procedura de clasificare
Skin Irrit. 2, H315	Metoda de calcul
Eye Irrit. 2, H319	Metoda de calcul
Skin Sens. 1A, H317	Metoda de calcul
Repr. 1B, H360F	Metoda de calcul
Aquatic Chronic 2, H411	Metoda de calcul

Acest document a fost întocmit de un tehnician competent în domeniul SDS şi care este pregătit în mod corespunzător.

Principalele surse bibliografice:

ECDIN - Rețeaua de date și informații de mediu privind produsele chimice - Centrul comun de cercetare, Comisia Comunităților Europene

SAX PROPRIETĂȚI PERICULOASE ALE MATERIALELOR INDUSTRIALE - Ediția a opta - Van Nostrand Reinold

Fișe tehnice de securitate ale furnizorilor de materii prime.

Aceste informatii se bazeaza pe cunostintele detinute la data mentionata mai sus. Se refera numai la produsul mentionat si nu constitue o garantie a calitatii pentru cazurile particulare

Este de datoria utilizatorului sa se asigure ca aceste informatii sunt adecvate si corespund domeniului specific de utilizare

Aceasta FTS anuleaza si inlocuieste pe cele emise anterior.

Legenda cu abrevierile şi acronimele folosite în fişa cu date de securitate

ACGIH: Conferința Americană a Igieniștilor Industriali Guvernamentali

ADR: Acordul European referitor la Încărcătura Internaţională de Bunuri Periculoase pe Drumuri

ATE: Toxicitate Acută Estimată

ATEmix: Estimarea toxicităţii acute (Amestecuri)

BEI: Index de Expunere Biologică

CAS: Chemical Abstracts Service (departament al Societăţii Americane de Chimie)

CAV: Centrul de Otrăvuri

CE: Comunitatea Europeană

CLP: Clasificare, Etichetare, Ambalare

CMR: Cancerigene, Mutagene și Toxice pentru reproducere

COV: Compus Organic Volatil

CSA: Evaluarea Securității Chimice

CSR: Raportul Securității Chimice

DNEL: Nivel Derivat Fără Efect

EC50: Jumătate din Concentrația Efectivă Maximă

ECHA: Agenția Europeană pentru Produse Chimice

EINECS: Inventarul European al Substanţelor Chimice Existente pe piaţă

ES: Scenariul de Expunere

GefStoffVO: Ordonanţă în legătură cu Substanţele Periculoase, Germania

GHS: Sistemul Mondial Armonizat de Clasificare şi Etichetare a Produselor Chimice

IARC: Agenția Internațională pentru Cercetare în Domeniul Cancerului

IATA: Asociaţia Internaţională de Transport Aerian

IC50: jumătate din concentrația inhibitorie maximă

IMDG: Coduri Maritime Internaţionale pentru Bunurile Periculoase

LC50: Concentraţia letală pentru un procent de 50% din populaţia test

LD50: Doza letală pentru un procent de 50% din populaţia test

LDLo: Doză Letală Scăzută

N.A.: Nu se aplică

N/A: Nu se aplică

N/D: Nedefinit/Nu este disponibil

N.D.: Nu este disponibil

NIOSH: Institutul Național pentru Securitate și Sănătate în Muncă

NOAEL: Nu există un Nivel al Efectelor Adverse Observat

OSHA: Administrația Securității și Sănătății în Muncă.

PBT: Persistente, Bioacumulative și Toxice

PGK: Instrucțiuni de ambalare

PNEC: Concentraţia Fără Efect Prevăzută

PSG: Pasageri
RID: Regulamentul Referitor la Transportul Internaţional de Bunuri Periculoase pe Calea Ferată
STEL: Limita de Expunere pe Termen Scurt
STOT: Toxicitatea pentru Organul Ţintă Specific
TLV: Valoarea Limită a Pragului
TLV-TWA: Valoarea Limită a Pragului pentru Durata Ponderată Medie 8 ore pe zi (Standard ACGIH)
vPvB: Foarte Persistent, Foarte Bioacumulativ.
WGK: Clasa Germană a Periculozităţii Apei

Paragrafe modificate de la ultima revizuire:

- SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii
- SECȚIUNEA 2: Identificarea pericolelor
- SECȚIUNEA 3: Compoziție/informații privind componenții
- SECȚIUNEA 8: Controale ale expunerii/protecția personală
- SECȚIUNEA 9: Proprietățile fizice și chimice
- SECȚIUNEA 11: Informații toxicologice
- SECȚIUNEA 12: Informații ecologice
- SECȚIUNEA 15: Informații de reglementare
- SECȚIUNEA 16: Alte informații

n-butyl acetate

Substance identification
Chemical Name: n-butyl acetate
CAS number: 123-86-4
Date - Version: 07/06/2017 10.0

1. USE IN COATINGS. USE IN PAINTS. USE IN PRINTING INKS. USE IN ADHESIVES.

Short title of the exposure scenario: Use in coatings. Use in paints. Use in printing inks. Use in adhesives.
SU3; ERC4; PROC7, PROC10, PROC13

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC4.1a.v1

Operating conditions

Yearly amount used in EU: 5,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 0.8%
Emission factor in water: 2%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Suitable measures to reduce emissions to air can be: Exhaust gas treatment with thermal oxidation.
Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.925355
Risk from environmental exposure is driven by soil.
Maximum safe use amount: 1080.7 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application

Area of use: Industrial

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Ensure that the activity is performed outside the operator’s respiratory zone (head-product distance greater than 1m).
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Avoid splashes.
Make sure the spray booth is used.
Wear suitable clothing.

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 4.2857 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.38961
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 0.0001 mg/m³
Risk Characterization Ratio (RCR): 0.000001

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes

Area of use: Industrial

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.7429 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.249351
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping and pouring

Area of use: Industrial

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 1.3714 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.124675
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra

2. USE IN COATINGS. USE IN PAINTS. USE IN PRINTING INKS. USE IN ADHESIVES.

Short title of the exposure scenario: Use in coatings. Use in paints. Use in printing inks. Use in adhesives.
SU3; ERC4; PROC7, PROC10, PROC13

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC4.1a.v1

Operating conditions

Yearly amount used in EU: 43,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 0.8%
Emission factor in water: 2%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Suitable measures to reduce emissions to air can be: Exhaust gas treatment with thermal oxidation.
Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.925355
Risk from environmental exposure is driven by soil.
Maximum safe use amount: 1080.7 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application

Area of use: Industrial

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Ensure that the activity is performed outside the operator’s respiratory zone (head-product distance greater than 1m).
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Avoid splashes.
Make sure the spray booth is used.
Wear suitable clothing.

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 4.2857 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.38961

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 0.0001 mg/m³
Risk Characterization Ratio (RCR): 0.000001

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes

Area of use: Industrial

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.7429 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.249351
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping and pouring

Area of use: Industrial

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 1.3714 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.124675
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

3. USE IN COATINGS. USE IN PAINTS. USE IN PRINTING INKS. USE IN ADHESIVES.

Short title of the exposure scenario: Use in coatings. Use in paints. Use in printing inks. Use in adhesives.
SU22; ERC8a, ERC8d; PROC10, PROC11, PROC13, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC 8a.2a.v1

Operating conditions

Yearly amount used in EU: 2,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 99%
Emission factor in water: 1%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

The wastewater treatment measures considered suitable are, for example, wastewater or sewage treatment plant.
Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.012923
Risk from environmental exposure is driven by freshwater sediment.
Maximum safe use amount: 1934.6 kg/giorno

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC 8d.3a.v1

Operating conditions

Yearly amount used in EU: 2,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 98%
Emission factor in water: 2%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.092422
Risk from environmental exposure is driven by soil.
Maximum safe use amount: 1082 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour). Effectiveness: 70%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.7429 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.249351
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 145.1979 mg/m³
Risk Characterization Ratio (RCR): 0.483993

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤45%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Ensure that the activity is performed outside the operator’s respiratory zone (head-product distance greater than 1m).
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Avoid splashes.
Make sure the spray booth is used.
Wear suitable clothing.

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 10.7143 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.974026
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 0.0001 mg/m³
Risk Characterization Ratio (RCR): 0.000001

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤45%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Daily general cleaning of equipment and work area.
Regular control and maintenance of equipment and machinery.
Make sure doors and windows are open (general ventilation).
Avoid splashes.
Use an adequately effective local ventilation system.
Wear suitable clothing.

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. The concentration of the substance has been considered using a linear approach. Worker - dermal, long-term - systemic.
Exposure estimation: 4.8214 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.438312
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. Operator - inhalation, long-term - local.
Exposure estimation: 153 mg/m³
Risk Characterization Ratio (RCR): 0.51

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Avoid splashes.
Make sure doors and windows are open (general ventilation).
Wear a half face mask with a P2L filter or better.
Wear suitable clothing.

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. The concentration of the substance has been considered using a linear approach. Worker - dermal, long-term - systemic.
Exposure estimation: 4.8214 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.438312
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. Operator - inhalation, long-term - local.
Exposure estimation: 116 mg/m³
Risk Characterization Ratio (RCR): 0.386667

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping and pouring

Area of use: Professional

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour). Effectiveness: 70%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 1.3714 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.124675
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 145.1979 mg/m³
Risk Characterization Ratio (RCR): 0.483993

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact with the only use of personal protective equipment

Area of use: Professional

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 240 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation: Effectiveness: 80%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Ensure a good standard of general or controlled ventilation (no less than 3-5 air changes per hour). Effectiveness: 30%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 8.4857 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.771429
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 67.759 mg/m³
Risk Characterization Ratio (RCR): 0.225863

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact with the only use of personal protective equipment
Area of use: Professional

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 60 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour). Effectiveness: 70%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.8286 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.257143
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 145.1979 mg/m³
Risk Characterization Ratio (RCR): 0.483993

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

Bis(isopropyl)naphthalene

Substance identification
Chemical Name: bis(isopropyl)naphthalene
EC number: 254-052-6
CAS number: 38640-62-9
Date - Version: 01/18/2018 v.1

SECTION 1: TITLE - Use in coatings - Industrial

List of use descriptors
Name of identified use: Use in coatings - Industrial: SU03; PROC01, PROC02 PROC03, PROC05, PROC07, PROC08a, PROC08b, PROC10, PROC13, PROC15; ERC05
Process category:PROC01, PROC02, PROC03, PROC05, PROC07, PROC08a, PROC08b, PROC10, PROC13, PROC15
Substance supplied for such use in the form of: As-it-is
End use sector: SU06a, SU13, SU16, SU17, SU18, SU19
Environmental Release Category ERC05

Environmental contributing scenario:
Use in coatings - ERC05

Worker contributing scenario(s):
Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions [PROC1]
Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions [PROC2]
Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions [PROC3].
Use of materials at industrial sites in open batch processes [PROC5].
Industrial Spray Applications [PROC7].
Transfer of substance or preparation (charging/discharging) at non dedicated facilities [PROC8a].
Transfer of substance or preparation (charging/discharging) at dedicated facilities [PROC8b].
Roller, spray and flow application[PROC10].
Treatment of articles by dipping and pouring [PROC13].
Use as laboratory reagent [PROC15].

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE

Quantity used
Daily amount per site: ≤ 5.3 tons/day.
Annual amount per site: ≤ 1200 tons/year.
Issue days: 225 days a year.
Percentage of EU tonnage used at regional scale: 100 %.

Other conditions concerning environmental exposure
Receiving surface water flow rate: ≥ 18000 m³/day.
Fattore di rilascio dopo la gestione del rischio in loco:
Emissions to process waste water: 0 % (CEPE SPERC 5.1a.v1)
Process air emissions: 0.1 % (CEPE SPERC 5.1a.v1)
Soil emissions from process: 0 % (CEPE SPERC 5.1a.v1)

On-site conditions and technical measures to reduce or limit discharges, emissions to air and releases to soil
Wet blast chiller or filtration: (Air - minimum efficiency: 95 %).

Conditions and measures related to sewage treatment plants
Wastewater treatment plant: Yes. (Efficiency of at least 85.29 %)
Discharge rate: ≥ 2000 m³/day.
Application of STP sludge on agricultural land: Yes.

CONTRIBUTING SCENARIO THAT CONTROLS WORKERS' EXPOSURE

Other conditions regarding workers' exposure
Do not swallow.
Avoid splashes.
Avoid contact with contaminated tools and objects.

Organisational measures to avoid/limit releases, dispersion and exposure.
Personnel training on good practice.
On-site supervision to check that the Risk Management Measures (RMMs) in place are being used correctly and the Operational Conditions (OCs) are being followed.
Sensitisers - Subject to relevant national legislation, pre-employment screening and appropriate health surveillance.

Conditions and measures for personal protection, hygiene and health assessments
Good level of personal hygiene.
Assumes a good basic standard of occupational hygiene is implemented.

SECTION 3: Exposure estimation and reference to its source

Exposure assessment (environment):
EUSES v2.1.2

Exposure estimation:
Fresh water: 0.000000887 mg/l
RCR: <0.01
Freshwater sediments: 0.00321 mg/Kg dwt
RCR: <0.01
Sea water: 0.000000016 mg/l.
RCR: <0.01
Marine sediment: 0.0000579 mg/kg dwt
RCR: <0.01
Wastewater treatment plant: 0 mg/l
RCR: <0.01
Soil: 0.012 mg/kg dwt
RCR: 0.677
Based on the applied risk management the risk to the environment is sufficiently controlled, RCR<1

Exposure assessment (human):
A qualitative approach was used to conclude that it is safe to use.

SECTION 4: Indications for the downstream user to assess whether he works within the limits established by ES.

Generals
The downstream user is required to assess that the operating conditions and risk management measures described in the exposure scenario are suitable for his/her use.
Where other OCs/RMMs are adopted, the user should ensure that risks are managed to at least equivalent levels.

The risk assessment methods/tools specified in Section 3 can be used for this assessment.

Environment
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
If scaling reveals a condition of unsafe use [i.e. risk characterisation ratio (RCR) > 1], additional risk management measures (RMM) or a site-specific chemical safety assessment or a site-specific chemical safety assessment will be required.
Further details on scaling and control technologies are provided in the SPERC

SECTION 1: TITLE - Use in coatings - Inside - Professional

List of use descriptors
Name of identified use: Use in coatings - Inside - Professional: SU22; PROC05, PROC08a PROC10, PROC11, PROC13, PROC19; ERC08c
Process category:PROC05, PROC08a PROC10, PROC11, PROC13, PROC19
Substance supplied for such use in the form of: As-it-is
End use sector: SU06a, SU13, SU16, SU17, SU18, SU19
Subsequent service life relevant to that use: No.
Environmental Release Category ERC08c
Market sector by type of chemical product: PC09a

Environmental contributing scenario:
Use in coatings-ERC08c

Worker contributing scenario(s):
Use of materials at industrial sites in open batch processes [PROC5].
Transfer of substance or preparation (charging/discharging) at non dedicated facilities [PROC8a].
Roller application or brushing [PROC10]
Non-industrial spray application [PROC11].
Treatment of articles by dipping and pouring [PROC13].
Manual activities with direct contact [PROC19].

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE

Quantity used
Daily amount of local widespread use: ≤ 0,00014 Tons/day

Other conditions concerning environmental exposure
Emissions to process waste water: 0 % (CEPE SPERC 8c.3a.v1)
Process air emissions: 2.2 % (CEPE SPERC 8c.3a.v1)
Soil emissions from process: 0 % (CEPE SPERC 8c.3a.v1)

Process-level conditions and technical measures (source) to prevent release
Indoor use
Professional use.

Conditions and measures related to sewage treatment plants
Wastewater treatment plant: Yes. (Efficiency of at least 85.29 %)

CONTRIBUTING SCENARIO THAT CONTROLS WORKERS' EXPOSURE

Other conditions regarding workers' exposure
Do not swallow.
Avoid splashes.
Avoid contact with contaminated tools and objects.

Organisational measures to avoid/limit releases, dispersion and exposure.
Personnel training on good practice.
On-site supervision to check that the Risk Management Measures (RMMs) in place are being used correctly and the Operational Conditions (OCs) are being followed.

Conditions and measures for personal protection, hygiene and health assessments
Good level of personal hygiene.
Assumes a good basic standard of occupational hygiene is implemented.

SECTION 3: Exposure estimation and reference to its source

Exposure assessment (environment):
EUSES v2.1.2

Exposure estimation:
Fresh water: 0.000000887 mg/l
RCR: <0.01
Freshwater sediments: 0.00321 mg/Kg dwt
RCR: <0.01
Sea water: 0.000000016 mg/l.
RCR: <0.01
Marine sediment: 0.0000579 mg/kg dwt
RCR: <0.01
Wastewater treatment plant: 0 mg/l
RCR: <0.01
Soil: 0.000076 mg/kg peso secco
RCR: <0.01
Based on the applied risk management the risk to the environment is sufficiently controlled, RCR<1

Exposure assessment (human):
A qualitative approach was used to conclude that it is safe to use.

SECTION 4: Indications for the downstream user to assess whether he works within the limits established by ES.

Generals
The downstream user is required to assess that the operating conditions and risk management measures described in the exposure scenario are suitable for his/her use.
Where other OCs/RMMs are adopted, the user should ensure that risks are managed to at least equivalent levels.

The risk assessment methods/tools specified in Section 3 can be used for this assessment.

Environment
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
If scaling reveals a condition of unsafe use [i.e. risk characterisation ratio (RCR) > 1], additional risk management measures (RMM) or a site-specific chemical safety assessment or a site-specific chemical safety assessment will be required.
Further details on scaling and control technologies are provided in the SPERC

SECTION 1: TITLE - Use in coatings - Outdoor - Professional

List of use descriptors

Name of identified use: Use in coatings - Outdoor - Professional: SU22; PROC05, PROC08a PROC10, PROC11, PROC13, PROC19; ERC08f
Process category:PROC05, PROC08a PROC10, PROC11, PROC13, PROC19
Substance supplied for such use in the form of: As-it-is
End use sector: SU06a, SU13, SU16, SU17, SU18, SU19
Subsequent service life relevant to that use: No.
Environmental Release Category ERC08f
Market sector by type of chemical product: PC09a

Environmental contributing scenario:

Use in coatings - ERC08f

Worker contributing scenario(s):

Use of materials at industrial sites in open batch processes [PROC5].
Transfer of substance or preparation (charging/discharging) at non dedicated facilities [PROC8a].
Roller application or brushing [PROC10]
Non-industrial spray application [PROC11].
Treatment of articles by dipping and pouring [PROC13].
Manual activities with direct contact [PROC19].

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE

Quantity used

Daily amount of local widespread use: ≤ 0,00011 Tons/day
Percentage of EU tonnage used at regional scale: 10%

Other conditions concerning environmental exposure

Emissions to process waste water: 1 % (CEPE SPERC 8f.2a.v1)
Process air emissions: 0 % (CEPE SPERC 8f.2a.v1)
Soil emissions from process: 0.5 % (CEPE SPERC 8f.2a.v1)

Process-level conditions and technical measures (source) to prevent release

Outdoor use
Professional use.

Conditions and measures related to sewage treatment plants

Wastewater treatment plant: Yes. (Efficiency of at least 85.29 %)

CONTRIBUTING SCENARIO THAT CONTROLS WORKERS' EXPOSURE

Other conditions regarding workers' exposure

Do not swallow.
Avoid splashes.
Avoid contact with contaminated tools and objects.

Organisational measures to avoid/limit releases, dispersion and exposure.

Personnel training on good practice.
On-site supervision to check that the Risk Management Measures (RMMs) in place are being used correctly and the Operational Conditions (OCs) are being followed.

Conditions and measures for personal protection, hygiene and health assessments

Good level of personal hygiene.
Assumes a good basic standard of occupational hygiene is implemented.

SECTION 3: Exposure estimation and reference to its source

Exposure assessment (environment):

EUSES v2.1.2

Exposure estimation:

Fresh water: 0.00000848 mg/l
RCR: 0.036
Freshwater sediments: 0.031 mg/Kg dwt
RCR: 0.359
Sea water: 0.000000775 mg/l.
RCR: 0.033
Marine sediment: 0.0028 mg/kg dwt
RCR: 0.329
Wastewater treatment plant: 0.00008 mg/l
RCR: <0.01
Soil: 0.015 mg/kg dwt
RCR: 0.891
Based on the applied risk management the risk to the environment is sufficiently controlled, RCR<1

Exposure assessment (human):

A qualitative approach was used to conclude that it is safe to use.

SECTION 4: Indications for the downstream user to assess whether he works within the limits established by ES.

Generals

The downstream user is required to assess that the operating conditions and risk management measures described in the exposure scenario are suitable for his/her use.
Where other OCs/RMMs are adopted, the user should ensure that risks are managed to at least equivalent levels.

The risk assessment methods/tools specified in Section 3 can be used for this assessment.

Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
If scaling reveals a condition of unsafe use [i.e. risk characterisation ratio (RCR) > 1], additional risk management measures (RMM) or a site-specific chemical safety assessment or a site-specific chemical safety assessment will be required.
Further details on scaling and control technologies are provided in the SPERC

SECTION 1: TITLE - Use in coatings - Consumer good

List of use descriptors

Name of identified use: Use in coatings - Consumer good: SU21; PC09a, PC09b; ERC08c, ERC08f
Substance supplied for such use in the form of: As-it-is
Subsequent service life relevant to that use: Yes.
Environmental Release Category ERC08c, ERC08f
Market sector by type of chemical product: PC09a, PC09b

Environmental contributing scenario:

Use in coatings - ERC08c
Use in coatings - ERC08f

Worker contributing scenario(s):

coatings and paints, thinners, pickling solutions (PC9a)
additives, fillers, plasters, modeling clay (PC9b)

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE 1

Quantity used

Daily amount of local widespread use: ≤ 0,0000011 Tons/day

Other conditions concerning environmental exposure

Emissions to process waste water: 1 % (CEPE SPERC 8c.1a.v1)
Process air emissions: 0 % (CEPE SPERC 8c.1a.v1)
Soil emissions from process: 0 % (CEPE SPERC 8c.1a.v1)

Conditions and measures related to sewage treatment plants

Wastewater treatment plant: Yes. (Efficiency of at least 85.29 %)

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE 2

Quantity used

Daily amount of local widespread use: ≤ 0,0000011 Tons/day

Other conditions concerning environmental exposure

Emissions to process waste water: 1 % (CEPE SPERC 8f.1a.v1)
Process air emissions: 0 % (CEPE SPERC 8f.1a.v1)
Soil emissions from process: 0.5 % (CEPE SPERC 8f.1a.v1)

Conditions and measures related to sewage treatment plants

Wastewater treatment plant: Yes. (Efficiency of at least 85.29 %)
CONTRIBUTING SCENARIO CONTROLLING CONSUMERS EXPOSURE 3

Coatings and paints, thinners, pickling solutions (PC9a)

Use of the substance is considered safe for the consumer if operating within the limits established by the exposure scenario; therefore, if complying with the operating conditions and risk management measures set out above.
CONTRIBUTING SCENARIO CONTROLLING CONSUMERS EXPOSURE 4

Additives, fillers, plasters, modeling clay (PC9b)

Use of the substance is considered safe for the consumer if operating within the limits established by the exposure scenario; therefore, if complying with the operating conditions and risk management measures set out above.

SECTION 3: Exposure estimation and reference to its source

Exposure assessment (environment): 1
EUSES v2.1.2

Exposure estimation:
Fresh water: 0.000000946 mg/l
RCR: <0.01
Freshwater sediments: 0.00348 mg/Kg dwt
RCR: 0.041
Sea water: 0.0000000237 mg/l.
RCR: <0.01
Marine sediment: 0.0000857 mg/kg dwt
RCR: 0.01
Wastewater treatment plant: 0.000000809 mg/l
RCR: <0.01
Soil: 0.000224 mg/kg dwt
RCR: 0.013
Based on the applied risk management the risk to the environment is sufficiently controlled, RCR<1

SECTION 3: Exposure estimation and reference to its source

Exposure assessment (environment): 2
EUSES v2.1.2

Exposure estimation:
Fresh water: 0.000000946 mg/l
RCR: <0.01
Freshwater sediments: 0.00348 mg/Kg dwt
RCR: 0.041
Sea water: 0.0000000237 mg/l.
RCR: <0.01
Marine sediment: 0.0000857 mg/kg dwt
RCR: 0.01
Wastewater treatment plant: 0.000000809 mg/l
RCR: <0.01
Soil: 0.000224 mg/kg dwt
RCR: 0.013
Based on the applied risk management the risk to the environment is sufficiently controlled, RCR<1

Exposure assessment (human):
A qualitative approach was used to conclude that it is safe to use.

SECTION 4: Indications for the downstream user to assess whether he works within the limits established by ES.

Generals
The downstream user is required to assess that the operating conditions and risk management measures described in the exposure scenario are suitable for his/her use.
Where other OCs/RMMs are adopted, the user should ensure that risks are managed to at least equivalent levels.

The risk assessment methods/tools specified in Section 3 can be used for this assessment.

Xylene

Identification of the exposure scenario
Product name: Xylene
Reach registration number: 01-2119488216-32-XXXX
CAS number: 1330-20-7
EC number: 215-535-7
Review date: 14/02/2022 rev. 3.0

USE IN COATINGS - INDUSTRIAL USE

1. Title of the exposure scenario

Process purpose: Includes use in coatings (varnishes, inks, adhesives, etc.), including exposure during application (including material receipt, storage, bulk and semi-bulk preparation and transfer, application by spray, roller, manual spraying, dip, flow, fluid layers in production lines and in film formation) and system cleaning, maintenance and related laboratory activities.
Main sector: SU3 Industrial uses

Environment

Environmental Release Categories [ERC]: ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article).
Specific Environmental Release Category [SPERC]: ESVOC SPERC 4.3a.v1

Worker

Process categories:
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.
PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.
PROC4 Production of chemicals with the possibility of exposure.
PROC5 Mixing or blending in batch processes
PROC7 Industrial spraying.
PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.
PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.
PROC10 Application with rollers or brushes.
PROC13 Treatment of articles by dipping and pouring.
PROC15 Use as laboratory reagent.
PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

2. Other conditions of use affecting exposure (Industrial - Environment 1)

Products features

Form: Liquid, vapor pressure 0.5 - 10 kPa at STP
Easily biodegradable.

Amounts used:

Annual amount per site: 2500 tonnes

Frequency and duration of use

Issue days: 300 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air
Air release rate produced by the process (initial release prior to risk management measures): 0.98
Emission factor - water
Waste water release rate produced by the process (initial release prior to risk management measures): 0.007
Emission factor - soil
Soil release rate produced by the process (initial release prior to risk management measures): 0

Environmental factors that are not influenced by risk management

Dilution

Local fresh water dilution factor: 10
Local seawater dilution factor: 100

Risk management measures

Sewage Treatment Plant Data (STP)

Estimated substance removal from waste water via domestic sewage treatment: 95.8%
Assumed domestic sewage treatment plant flow: 2000 m³/day

Local technical conditions and measures to reduce and limit discharges and air emissions

Air:

Treat air emission to provide a typical removal efficiency of > 90%.

Water:

Avoid releasing the undiluted substance into local waste water or recover it on site. The typical on-site purification technique has a removal efficiency of 95.8%.

Ground:

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures for external treatment of waste

Sludge treatment:

Do not spread industrial sludge on natural soils. Sewerage sludge should be burned, stored or regenerated.
Waste treatment:
No waste of the substance is formed during production.

2. Other conditions of use affecting exposure (Workers - Health 1)

Products features

Form:

Liquid, vapor pressure 0.5 - 10 kPa at STP
Concentration information: Includes concentrations up to 100%, unless otherwise indicated.

Quantities used

Not applicable.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure

Temperature: (unless stated differently) assumes use at not more than 20°C above ambient temperature.
Ventilation Rate: Ensure a sufficient amount of controlled ventilation (10 to 15 air changes per hour). Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and process-level (source) measures to prevent releases

Technical protective measures:

Handle substance within a closed system. Provide supplementary ventilation to points where emissions occur. Ensure material transfers are managed using closed or air exhaust systems. Drain or remove substance from equipment before opening or servicing PROC7 Industrial spraying: spraying (automatic/robotic) should be carried out in a ventilated booth with laminar air flow.

Risk management measures:

PROC7 Industrial spraying.
Manual spraying.
Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure:

Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.
Maximum allowable site tonnage (Msafe), based on release following total waste water treatment removal: 9874 kg/day

3. Exposure Verification (Health 1)

Exposure

Predicted workplace exposures are not expected to exceed the DNEL when risk identification measures are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Required removal efficiency for waste water can be achieved using on-site/off-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

USE IN COATINGS - PROFESSIONAL USE

1. Title of the exposure scenario

Process purpose: Includes use in coatings (varnishes, inks, adhesives, etc.), including exposure during application (including material receipt, storage, bulk and semi-bulk preparation and transfer, application by spray, roller, brush and manual spraying or similar processes and film formation) and system cleaning, maintenance and related laboratory activities.
Main sector: SU22 Professional uses

Environment

Environmental Release Categories [ERC]:
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor).
ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor).
ERC8c Widespread use leading to inclusion into/onto article (indoor).
ERC8f Widespread use leading to inclusion into/onto article (outdoor).
Specific Environmental Release Category [SPERC]: ESVOC SPERC 8.3b.v1

Worker

Process categories:
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.
PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.
PROC4 Production of chemicals with the possibility of exposure.
PROC5 Mixing or blending in batch processes
PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.
PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.
PROC10 Application with rollers or brushes.
PROC11 Non-industrial spray application.
PROC13 Treatment of articles by dipping and pouring.
PROC15 Use as laboratory reagent.
PROC19 Manual activities with direct contact.
PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

2. Other conditions of use affecting exposure (Industrial - Environment 1)

Products features

Form: Liquid, vapor pressure 0.5 - 10 kPa at STP Easily biodegradable.

Quantities used

Annual amount per site: 10 tonnes

Frequency and duration of use

Issue days: 365 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air
Air release rate produced by the process (initial release prior to risk management measures): 0.98
Emission factor - water
Waste water release rate produced by the process (initial release prior to risk management measures): 0.01
Emission factor - soil
Soil release rate produced by the process (initial release prior to risk management measures): 0.01

Environmental factors that are not influenced by risk management

Dilution
Local fresh water dilution factor: 10
Local seawater dilution factor: 100

Risk management measures
Sewage Treatment Plant Data (STP)
Estimated substance removal from waste water via domestic sewage treatment 95.8%
Assumed domestic sewage treatment plant flow: 2000 m³/day

Local technical conditions and measures to reduce and limit discharges and air emissions
Air: Treat air emission to provide a typical removal efficiency of 0%.
Water: The typical on-site purification technique has a removal efficiency of 95.8%.

Conditions and measures for external treatment of waste
Waste treatment: External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Other conditions of use affecting exposure (Workers - Health 1)

Products features
Form:
Liquid, vapor pressure 0.5 - 10 kPa at STP
Concentration information:
Includes concentrations up to 100%, unless otherwise indicated.

Quantities used
Not applicable.

Frequency and duration of use
Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure
Temperature:
(unless stated differently) assumes use at not more than 20°C above ambient temperature.
Ventilation Rate:
Provide a good standard of controlled ventilation (10 to 15 air changes per hour) or ensure operation is undertaken outdoors. Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and process-level (source) measures to prevent releases
Technical protective measures:
Handle substance within a closed system. Provide supplementary ventilation to points where emissions occur. Ensure material transfers are managed using closed or air exhaust systems. Clean/flush equipment prior to opening or maintenance. Transport on closed roads. PROC11 Non-industrial spray application. Indoor use. Perform in a laminar flow ventilated booth. PROC15 Use as laboratory reagents handle under fume hood or extract air.

Organizational measures to prevent/limit releases, dispersion and exposure
Organizational measures
Avoid activities with an exposure of more than 4 hours.
Hand Application - Finger Paints, Chalks, Stickers:
Limit the amount of substance in the mixture to 5%.

Risk management measures
Wear protective gloves according to EN 374, resistant to solvents.
PROC10 Application with rollers or brushes.
PROC11 Non-industrial spray application. Outdoor use.
PROC13 Treatment of articles by dipping and pouring. Outdoor use.
Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure
Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.
Maximum allowable site tonnage (Msafe), based on release following total waste water treatment removal: 5969 kg/day

3. Exposure Verification (Health 1)

Exposure

Predicted workplace exposures are not expected to exceed the DNEL when risk identification measures are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Required removal efficiency for waste water can be achieved using on-site/off-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

bis-[4-(2,3-epoxipropoxi)phenyl]propane

Substance identification
Chemical Name: bis-[4-(2,3-epoxipropoxi)phenyl]propane
CAS number: 1675-54-3
Date - Version: 29/12/2021 - 1.3

INDUSTRIAL USE - PROFESSIONAL USES: PUBLIC SECTOR (ADMINISTRATION, EDUCATION, ENTERTAINMENT, SERVICES, CRAFTS) (SU22).

1. TITLE SECTION

Exposure scenario name: Industrial use.
Structured short title: Professional uses: public sector (administration, education, entertainment, service, crafts) (SU22).
Substance: 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane
EC number: 216-823-5
Registration number: 01-2119456619-26

ENVIRONMENT

SC 1: Use of non-reactive processing aid at industrial site (no inclusion in article) ERC4

WORKER

SC 2: Use as laboratory reagents PROC15
SC 3: Treatment of articles by dipping and pouring PROC13
SC 4: Tableting, compression, extrusion, pelletising, granulation PROC14
SC 5: General greasing/lubrication in high energy conditions PROC18
SC 6 Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8a

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. ENVIRONMENTAL EXPOSURE CONTROL: Use of non-reactive processing aid at industrial site (no inclusion in article) (ERC4)

Product features (article)
Physical form of the product: Liquid

Amount used (or contained in articles), frequency and duration of use/exposure
Daily amount per site: 0,6 ton/day
Annual amount per site: 20 ton/year

Conditions and measures related to sewage treatment plant
STP Type: Municipal wastewater treatment plant.
Learn more about STP: biological elimination.
STP sludge treatment: It may be landfilled when allowed by local regulations.
STP effluent: 2,000 m³/day

Other conditions affecting environmental exposure
Water flow on the receiving surface: 18,000 m³/day
Outdoor / Indoor Indoor use.

2.2. WORKERS EXPOSURE CONTROL: Use as laboratory reagents (PROC15)

Product features (article)
Covers the percentage of substance in the product up to 100%.
Physical form of the product: Liquid.
Temperature: < 40°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 40°C

2.3. WORKERS EXPOSURE CONTROL: Treatment of articles by dipping and pouring (PROC13)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: < 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 0%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 40°C

2.4. WORKERS EXPOSURE CONTROL: Tableting, compression, extrusion, pelletising, granulation (PROC14)

Product features (article)
Covers the percentage of substance in the product up to 100%.
Physical form of the product: Liquid.
Temperature: < 40°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 40°C

2.5. WORKERS EXPOSURE CONTROL: General greasing/lubrication in high energy conditions (PROC18)

Product features (article)
Covers concentrations up to 20%.
Physical form of the product: Liquid.
Temperature: ≤ 800°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Outside.
Industrial or professional environments: Professional use.
Temperature: ≤ 800°C

2.6. WORKERS EXPOSURE CONTROL: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities (PROC8a)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Outside.
Industrial or professional environments: Professional use.
Temperature: A process temperature of up to < 40°C is assumed.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Environmental release and exposure: Use of non-reactive processing aid at industrial site (no inclusion in article) (ERC4)

Route release	Release rate	Method for estimating for release
water	1.2E-10kg/day	FEICA SPERC 5.1 a.v1
air	3E-4kg/day	FEICA SPERC 5.1 a.v1
Soil	0%	FEICA SPERC 5.1 a.v1

Protection target	Estimated Exposure (EUSES v2.1)	RCR
Fresh water	3.76E-4mg/l	0.063
Fresh water sediments	0.018mg/l	0.053
Sea water	2.95E-5mg/kg dry weight	0.049
Marine sediment	1.42E-3mg/kg dry weight	0.042
Sewage treatment plant	5.68E-11mg/l	< 0.01
Farmland	2.88E-6mg/kg dry weight	< 0.01
Prey for predators (freshwater)	mg/kg wet weight (EUSES v2.1)	< 0.01
Prey for predators (marine water)	9.13E-4mg/kg wet weight	< 0.01
Main predator prey (marine water)	9.13E-4mg/kg wet weight	< 0.01
Prey for Predators (Terrestrial)	1.68E-4mg/kg wet weight	< 0.01
Man through the environment - inhalation	7.65E-9mg/m³	< 0.01
Man through the environment - oral	3E-5mg/kgbw/day	< 0.01
Population exposed through the environment	-	< 0.01

3.2. Worker exposure: Use as laboratory reagents (PROC15)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.993mg/m³	0.201
inhalation	local	Long-term	0.993mg/m³	-
inhalation	local	Short term	0.993mg/m³	-
dermal	systemic	Long-term	0.172mg/kg bw/day	0.045
dermal	local	Short term	9.92E-3mg/cm²	-
combined routes	-	-	-	0.247

3.3. Worker exposure: Treatment of articles by dipping and pouring (PROC13)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.085mg/m³	0.017
inhalation	local	Long-term	0.085mg/m³	-
inhalation	local	Short term	0.085mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.06mg/cm²	-
combined routes	-	-	-	0.566

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

3.4. Worker exposure: Tableting, compression, extrusion, pelletising, granulation (PROC14)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.993mg/m³	0.201
inhalation	local	Long-term	0.993mg/m³	-
inhalation	local	Short term	0.993mg/m³	-
dermal	systemic	Long-term	0.172mg/kg bw/day	0.229
dermal	local	Short term	0.0025mg/cm²	-
combined routes	-	-	-	0.43

3.5. Worker exposure: General greasing/lubrication in high energy conditions (PROC18)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.596mg/m³	0.121
inhalation	local	Long-term	0.596mg/m³	-
inhalation	local	Short term	0.596mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.669

3.6. Worker exposure: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.596mg/m³	0.121
inhalation	local	Long-term	0.596mg/m³	-
inhalation	local	Short term	0.596mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.669

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

PROFESSIONAL USE - PROFESSIONAL USES: PUBLIC SECTOR (ADMINISTRATION, EDUCATION, ENTERTAINMENT, SERVICES, CRAFTS) (SU22).

1. TITLE SECTION

Exposure scenario name: Professional.
Structured short title: Professional uses: public sector (administration, education, entertainment, service, crafts) (SU22).
Substance: 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane
EC number: 216-823-5
Registration number: 01-2119456619-26

ENVIRONMENT

SC 1: Use at an industrial site leading to inclusion in article ERC5

WORKER

SC 2: Industrial spraying PROC7
SC 3 Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8a
SC 4: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. PROC8b
SC 5: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC9
SC 6: Application with rollers or brushes PROC10
SC 7: Non-industrial spraying PROC11

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. ENVIRONMENTAL EXPOSURE CONTROL: Use at an industrial site leading to inclusion in article (ERC5)

Product features (article)

Covers a percentage of substance in the product up to 100%.
Physical form of the product: Liquid

Amount used (or contained in articles), frequency and duration of use/exposure

Annual amount per site: 30,000 tons/year
Daily amount per site: 100 tons/day

Conditions and measures related to sewage treatment plant

STP Type: Municipal wastewater treatment plant.
Learn more about STP: biological elimination.
STP sludge treatment: It may be landfilled when allowed by local regulations.
STP effluent: 2,000 m³/day

Other conditions affecting environmental exposure

Water flow on the receiving surface: 18,000 m³/day

2.2. WORKERS EXPOSURE CONTROL: Industrial spraying (PROC7)

Product features (article)

Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
If skin contamination is expected to extend to other parts of the body, these parts should also be protected with impermeable clothing equivalent to that described for the hands.
Wear suitable respirator.
Dermal: minimum efficiency of 99%.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Industrial or professional environments Professional use.
Temperature: Process temperature up to 70°C is assumed.

2.3. WORKERS EXPOSURE CONTROL: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities (PROC8a)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 0%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Industrial or professional environments Professional use.
Temperature: 70°C

2.4. WORKERS EXPOSURE CONTROL: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. (PROC8b)

Product features (article)
Covers the percentage of substance in the product up to 100%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: 70°C

2.5. WORKERS EXPOSURE CONTROL: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

Product features (article)
Covers concentrations up to 100%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: < 50°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 95%.
Inhalation: minimum yield of 0%.
Wear suitable respirator.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 50°C

2.6. WORKERS EXPOSURE CONTROL: Application with rollers or brushes (PROC10)

Product features (article)
Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Vapour pressure: 0,00741 Pa
Temperature: < 70°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions
Assumes a good basic standard of occupational hygiene is implemented.
Provide a good standard of general ventilation (not less than 1 to 3 air changes per hour).
Local exhaust ventilation.
Dermal: minimum efficiency of 0%.
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
Dermal: minimum efficiency of 99%.
Inhalation: minimum yield of 0%.

Other conditions affecting worker exposure
Outdoor / Indoor Inside.
Temperature: < 70°C.

2.7. WORKERS EXPOSURE CONTROL: Non-industrial spraying (PROC11)

Product features (article)

Covers the percentage of substance in the product up to 25%.
Physical form of the product: Liquid.
Temperature: < 40°C

Amount used (or contained in articles), frequency and duration of use/exposure

Duration: Covers daily exposures up to 8 hours.

Organizational and technical measures and conditions

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

Conditions and measures for personal protection, hygiene and health assessment

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Use adequate eye protection.
If skin contamination is expected to extend to other parts of the body, these parts should also be protected with impermeable clothing equivalent to that described for the hands.
Wear suitable respirator.
Dermal: minimum efficiency of 99%.
Inhalation: minimum yield of 90%.

Other conditions affecting worker exposure

Outdoor / Indoor Inside.
Temperature: < 40°C.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Environmental release and exposure: Use at an industrial site leading to inclusion in article (ERC5)

Route release	Release rate	Method for estimating for release
water	0.06 kg/day	FEICA SPERC 8c.1 b.v1
air	0 kg/day	FEICA SPERC 8c.1 b.v1
Soil	0%	FEICA SPERC 8c.1 b.v1

Protection target	Estimated Exposure (EUSES v2.1)	RCR
Fresh water	3.22E-3mg/l	0,536
Fresh water sediments	0.155mg/l	0,454
Sea water	3.14E-4mg/l	0,523
Marine sediment	0.015mg/kg dry weight	0,442
Sewage treatment plant	0.028mg/l	< 0.01
Farmland	0.05mg/kg dry weight	0,779
Prey for predators (freshwater)	0.048mg/kg wet weight	< 0.01
Prey for predators (marine water)	4.53E-3mg/kg wet weight	< 0.01
Main predator prey (marine water)	1.64E-3mg/kg wet weight	< 0.01
Prey for Predators (Terrestrial)	0.056mg/kg wet weight	< 0.01
Man through the environment - inhalation	Concentration in air: 3.45E-11 mg/m³	< 0.01
Man through the environment - oral	1.47E-3mg/kg pc/giorno	< 0.01
Population exposed through the environment	-	< 0.01

3.2. Worker exposure: Industrial spraying (PROC7)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.34mg/m³ (ART v1.5)	0.069
inhalation	local	Long-term	0.34mg/m³ (ART v1.5)	-
inhalation	local	Short term	0.78mg/m³ (ART v1.5)	-
dermal	systemic	Long-term	0.257mg/kgbw/day (ECETOC TRA worker v3)	0.343
dermal	local	Short term	0.012mg/cm² (ECETOC TRA worker v3)	-
combined routes	-	-	-	0.412

3.3. Worker exposure: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.851mg/m³	0.173
inhalation	local	Long-term	0.851mg/m³	-
inhalation	local	Short term	0.851mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.721

3.4. Worker exposure: Transfer of a substance or a mixture (fill/discharge) at dedicated facilities (PROC8b)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.085mg/m³	0.017
inhalation	local	Long-term	0.085mg/m³	-
inhalation	local	Short term	0.0851mg/m³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm²	-
combined routes	-	-	-	0.566

3.5. Worker exposure: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.099mg/m³	0.02
inhalation	local	Long-term	0.099mg/m³	-
inhalation	local	Short term	0.993mg/m³	-
dermal	systemic	Long-term	0.343mg/kgbw/day	0.457
dermal	local	Short term	0.05mg/cm²	-
combined routes	-	-	-	0.659

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

3.6. Worker exposure: Application with rollers or brushes (PROC10)

Exposure routes	Health effect	Exposure indicator	Estimated exposure (ECETOC TRA worker v3)	RCR
inhalation	systemic	Long-term	0.085mg/m³	0.017
inhalation	local	Long-term	0.085mg/m³	-
inhalation	local	Short term	0.085mg/m³	-
dermal	systemic	Long-term	0.165mg/kgbw/day	0.219
dermal	local	Short term	0.012mg/cm²	-
combined routes	-	-	-	0.237

3.7. Worker exposure: Non-industrial spraying (PROC11)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.34mg/m³ (ART v1 .5)	0.069
inhalation	local	Long-term	0.34mg/m³ (ART v1 .5)	-
inhalation	local	Short term	0.78mg/m³ (ART v1 .5)	-
dermal	systemic	Long-term	0.643mg/kgbw/day (ECETOC TRA worker v3)	0.857
dermal	local	Short term	0.03mg/cm² (ECETOC TRA worker v3)	-
combined routes	-	-	-	0.926

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

1 - bis-[4-(2,3-epoxipropoxi)phenyl]propane - 1

2-methoxy-1-methylethyl acetate

Substance identification
Chemical Name: 2-methoxy-1-methylethyl acetate
CAS number: 108-65-6
Date - Version: 02/08/2021 18.0

4. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC4: Industrial use of processing aids not becoming part of articles.

Operating conditions

Yearly amount used in EU: 63,050,000 kg
Daily amount per site: 105.087 kg
Minimum continuous emission days per year: 300
Emission factor to air: 27%
Emission factor in water: 2%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Treat air emissions to provide a typical removal efficiency of 70%.
Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.1338
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 79,180 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 0.04 mg/m³
Risk Characterization Ratio (RCR): 0.0001
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Continuous process (closed system) with sample collection.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Film formation - Fast drying.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.5
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Mixing operations. General exposure (closed system).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 93.85 mg/m³
Risk Characterization Ratio (RCR): 0.25
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application. Mixing operations (open systems).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (automatic/robotic).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Carry out in a vented booth or extracted enclosure. Effectiveness: 95%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 46.93 mg/m³
Risk Characterization Ratio (RCR): 0.13
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 2.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (manual).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Effectiveness: 70%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 281.56 mg/m³
Risk Characterization Ratio (RCR): 0.76
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 8.57 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Non-dedicated system.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Dedicated plant.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Material transfers. Drum/batch transfers. Transfer from containers. Dedicated plant.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 5.49 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC14: Production of preparations or articles by tableting, compression, extrusion or pelletising. Production or preparation of articles by tableting, compression, extrusion.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 3.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

5. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC4: Industrial use of processing aids not becoming part of articles.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 430kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 140.104 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure (closed system). General exposure.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Continuous process (closed system) with sample collection.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Film formation - Fast drying.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Mixing operations. General exposure (closed system).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 18.77 mg/m³
Risk Characterization Ratio (RCR): 0.05
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 15.02 mg/m³
Risk Characterization Ratio (RCR): 0.04
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application. Mixing operations (open systems).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (automatic/robotic). Spraying (manual)

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 8.57 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (manual).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Non-dedicated system.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Dedicated plant.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Material transfers. Drum/batch transfers. Transfer from containers. Dedicated plant.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC14: Production of preparations or articles by tableting, compression, extrusion or pelletising. Production or preparation of articles by tableting, compression, extrusion.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 3.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

7 USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8a: Wide dispersive indoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste
Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 0.04 mg/m³
Risk Characterization Ratio (RCR): 0.0001
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
The use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Use in confined systems (closed system). Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Preparation of material for application

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 93.85 mg/m³
Risk Characterization Ratio (RCR): 0.25
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
The use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 269.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Drum/batch transfers. Non-dedicated system.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Drum/batch transfers Dedicated plant.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 5.49 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.
Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Carry out in a vented booth or extracted enclosure. Effectiveness: 80%.
Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 2.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally. Effectiveness: 30%.
Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 131.4 mg/m³
Risk Characterization Ratio (RCR): 0.36
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 21.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.42

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%.
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 14.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.28

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

8. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8a: Wide dispersive indoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste
Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure. General exposure (closed system).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Use in confined systems (closed system). Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 15.02 mg/m³
Risk Characterization Ratio (RCR): 0.4
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Preparation of material for application

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 18.77 mg/m³
Risk Characterization Ratio (RCR): 0.05
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Indoor use.
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Drum/batch transfers. Non-dedicated system.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Drum/batch transfers Dedicated plant.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Indoor/Outdoor: Outdoor use.
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%.
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 10.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.21

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Indoor use.
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 28.29 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.56

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Outdoor use.
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

Xylene

Identification of the exposure scenario
Product name: Xylene
Reach registration number: 01-2119488216-32-XXXX
CAS number: 1330-20-7
EC number: 215-535-7
Review date: 14/02/2022 rev. 3.0

USE IN COATINGS - INDUSTRIAL USE

1. Title of the exposure scenario

Process purpose: Includes use in coatings (varnishes, inks, adhesives, etc.), including exposure during application (including material receipt, storage, bulk and semi-bulk preparation and transfer, application by spray, roller, manual spraying, dip, flow, fluid layers in production lines and in film formation) and system cleaning, maintenance and related laboratory activities.
Main sector: SU3 Industrial uses

Environment

Environmental Release Categories [ERC]: ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article).
Specific Environmental Release Category [SPERC]: ESVOC SPERC 4.3a.v1

Worker

Process categories:
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.
PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.
PROC4 Production of chemicals with the possibility of exposure.
PROC5 Mixing or blending in batch processes
PROC7 Industrial spraying.
PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.
PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.
PROC10 Application with rollers or brushes.
PROC13 Treatment of articles by dipping and pouring.
PROC15 Use as laboratory reagent.
PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

2. Other conditions of use affecting exposure (Industrial - Environment 1)

Products features

Form: Liquid, vapor pressure 0.5 - 10 kPa at STP
Easily biodegradable.

Amounts used:

Annual amount per site: 2500 tonnes

Frequency and duration of use

Issue days: 300 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air
Air release rate produced by the process (initial release prior to risk management measures): 0.98
Emission factor - water
Waste water release rate produced by the process (initial release prior to risk management measures): 0.007
Emission factor - soil
Soil release rate produced by the process (initial release prior to risk management measures): 0

Environmental factors that are not influenced by risk management

Dilution

Local fresh water dilution factor: 10
Local seawater dilution factor: 100

Risk management measures

Sewage Treatment Plant Data (STP)

Estimated substance removal from waste water via domestic sewage treatment: 95.8%
Assumed domestic sewage treatment plant flow: 2000 m³/day

Local technical conditions and measures to reduce and limit discharges and air emissions

Air:

Treat air emission to provide a typical removal efficiency of > 90%.

Water:

Avoid releasing the undiluted substance into local waste water or recover it on site. The typical on-site purification technique has a removal efficiency of 95.8%.

Ground:

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures for external treatment of waste

Sludge treatment:

Do not spread industrial sludge on natural soils. Sewerage sludge should be burned, stored or regenerated.
Waste treatment:
No waste of the substance is formed during production.

2. Other conditions of use affecting exposure (Workers - Health 1)

Products features

Form:

Liquid, vapor pressure 0.5 - 10 kPa at STP
Concentration information: Includes concentrations up to 100%, unless otherwise indicated.

Quantities used

Not applicable.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure

Temperature: (unless stated differently) assumes use at not more than 20°C above ambient temperature.
Ventilation Rate: Ensure a sufficient amount of controlled ventilation (10 to 15 air changes per hour). Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and process-level (source) measures to prevent releases

Technical protective measures:

Handle substance within a closed system. Provide supplementary ventilation to points where emissions occur. Ensure material transfers are managed using closed or air exhaust systems. Drain or remove substance from equipment before opening or servicing PROC7 Industrial spraying: spraying (automatic/robotic) should be carried out in a ventilated booth with laminar air flow.

Risk management measures:

PROC7 Industrial spraying.
Manual spraying.
Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure:

Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.
Maximum allowable site tonnage (Msafe), based on release following total waste water treatment removal: 9874 kg/day

3. Exposure Verification (Health 1)

Exposure

Predicted workplace exposures are not expected to exceed the DNEL when risk identification measures are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Required removal efficiency for waste water can be achieved using on-site/off-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

USE IN COATINGS - PROFESSIONAL USE

1. Title of the exposure scenario

Process purpose: Includes use in coatings (varnishes, inks, adhesives, etc.), including exposure during application (including material receipt, storage, bulk and semi-bulk preparation and transfer, application by spray, roller, brush and manual spraying or similar processes and film formation) and system cleaning, maintenance and related laboratory activities.
Main sector: SU22 Professional uses

Environment

Environmental Release Categories [ERC]:
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor).
ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor).
ERC8c Widespread use leading to inclusion into/onto article (indoor).
ERC8f Widespread use leading to inclusion into/onto article (outdoor).
Specific Environmental Release Category [SPERC]: ESVOC SPERC 8.3b.v1

Worker

Process categories:
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.
PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.
PROC4 Production of chemicals with the possibility of exposure.
PROC5 Mixing or blending in batch processes
PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.
PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.
PROC10 Application with rollers or brushes.
PROC11 Non-industrial spray application.
PROC13 Treatment of articles by dipping and pouring.
PROC15 Use as laboratory reagent.
PROC19 Manual activities with direct contact.
PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

2. Other conditions of use affecting exposure (Industrial - Environment 1)

Products features

Form: Liquid, vapor pressure 0.5 - 10 kPa at STP Easily biodegradable.

Quantities used

Annual amount per site: 10 tonnes

Frequency and duration of use

Issue days: 365 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air
Air release rate produced by the process (initial release prior to risk management measures): 0.98
Emission factor - water
Waste water release rate produced by the process (initial release prior to risk management measures): 0.01
Emission factor - soil
Soil release rate produced by the process (initial release prior to risk management measures): 0.01

Environmental factors that are not influenced by risk management

Dilution
Local fresh water dilution factor: 10
Local seawater dilution factor: 100

Risk management measures
Sewage Treatment Plant Data (STP)
Estimated substance removal from waste water via domestic sewage treatment 95.8%
Assumed domestic sewage treatment plant flow: 2000 m³/day

Local technical conditions and measures to reduce and limit discharges and air emissions
Air: Treat air emission to provide a typical removal efficiency of 0%.
Water: The typical on-site purification technique has a removal efficiency of 95.8%.

Conditions and measures for external treatment of waste
Waste treatment: External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Other conditions of use affecting exposure (Workers - Health 1)

Products features
Form:
Liquid, vapor pressure 0.5 - 10 kPa at STP
Concentration information:
Includes concentrations up to 100%, unless otherwise indicated.

Quantities used
Not applicable.

Frequency and duration of use
Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure
Temperature:
(unless stated differently) assumes use at not more than 20°C above ambient temperature.
Ventilation Rate:
Provide a good standard of controlled ventilation (10 to 15 air changes per hour) or ensure operation is undertaken outdoors. Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and process-level (source) measures to prevent releases
Technical protective measures:
Handle substance within a closed system. Provide supplementary ventilation to points where emissions occur. Ensure material transfers are managed using closed or air exhaust systems. Clean/flush equipment prior to opening or maintenance. Transport on closed roads. PROC11 Non-industrial spray application. Indoor use. Perform in a laminar flow ventilated booth. PROC15 Use as laboratory reagents handle under fume hood or extract air.

Organizational measures to prevent/limit releases, dispersion and exposure
Organizational measures
Avoid activities with an exposure of more than 4 hours.
Hand Application - Finger Paints, Chalks, Stickers:
Limit the amount of substance in the mixture to 5%.

Risk management measures
Wear protective gloves according to EN 374, resistant to solvents.
PROC10 Application with rollers or brushes.
PROC11 Non-industrial spray application. Outdoor use.
PROC13 Treatment of articles by dipping and pouring. Outdoor use.
Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure
Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.
Maximum allowable site tonnage (Msafe), based on release following total waste water treatment removal: 5969 kg/day

3. Exposure Verification (Health 1)

Exposure

Predicted workplace exposures are not expected to exceed the DNEL when risk identification measures are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Required removal efficiency for waste water can be achieved using on-site/off-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

FASSA EPOXY 400 COMP.B

Fișa cu date de securitate din data 15/05/2026 versiunea 3

SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii

1.1. Identificator de produs

Identificarea preparatului:

Nume comercial: FASSA EPOXY 400 COMP.B

Cod comercial: 1224.B

UFI: JXUA-8HQK-830Q-YWR7

1.2. Utilizări relevante identificate ale substanței sau ale amestecului și utilizări contraindicate

Utilizarea recomandată: Rășină epoxidică; Numai pentru uz profesional

Utilizări de evitat: Nu este destinat utilizării de către consumator

1.3. Detalii privind furnizorul fișei cu date de securitate

Compania: FASSA Srl

Via Lazzaris, 3 - 31027 Spresiano (TV) - ITALY

Tel. +39 0422 7222

Fax +39 0422 887509

Responsabil: laboratorio.spresiano@fassabortolo.it

1.4. Număr de telefon care poate fi apelat în caz de urgență

+40213183606

SECȚIUNEA 2: Identificarea pericolelor



2.1. Clasificarea substanței sau a amestecului

Regulamentul (CE) nr. 1272/2008 (CLP)

Acute Tox. 4	Nociv în caz de înghiţire.
Skin Corr. 1B	Provoacă arsuri grave ale pielii şi lezarea ochilor.
Skin Sens. 1A	Poate provoca o reacţie alergică a pielii.
Aquatic Chronic 3	Nociv pentru mediul acvatic cu efecte pe termen lung.

Efecte fizico-chimice dăunătoare sănătăţii omului şi mediului înconjurător:

Nici un alt risc

2.2. Elemente de etichetare

Regulamentul (CE) nr. 1272/2008 (CLP)

Pictograme de pericol şi cuvânt de avertizare



Pericol

Fraze de pericol

H302	Nociv în caz de înghiţire.
H314	Provoacă arsuri grave ale pielii şi lezarea ochilor.
H317	Poate provoca o reacţie alergică a pielii.
H412	Nociv pentru mediul acvatic cu efecte pe termen lung.

Fraze de precauţie

P260	Nu inspirați fumul/gazul/ceața/vaporii/spray-ul.
P264	Spălați-vă cu apă după utilizare.
P280	Purtaţi mănuşi de protecţie şi protejaţi ochii/vederea.
P303+P361+P353	ÎN CAZ DE CONTACT CU PIELEA (sau cu părul): Scoateți imediat toată îmbrăcămintea contaminată. Clătiți pielea cu apă sau faceți duș.
P305+P351+P338	ÎN CAZ DE CONTACT CU OCHII: Clătiți cu atenție cu apă timp de mai multe minute. Scoateți lentilele de contact, dacă este cazul și dacă acest lucru se poate face cu ușurință. Continuați să clătiți.

P310 Sunați imediat la un CENTRU DE INFORMARE TOXICOLOGICĂ/un medic.

Prevederi speciale:

EUH071 Corosiv pentru căile respiratorii.

Conţine:

alcool benzilic

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

m-fenilenbis(metilamină)

3-aminopropiltrietoxisilan

formaldehidă, produse de reacție polimerică cu 4-tert-butilfenol, m-fenilenbis(metilamină) și trimetilhexan-1,6-diamină

Dispoziţii speciale conform Anexei XVII (REACH) cu modificările şi completările ulterioare:

Nici una

2.3. Alte pericole

Nu conține PBT, vPvB sau perturbatori endocrini prezenți în concentrații >= 0,1%.

Nici un alt risc

SECȚIUNEA 3: Compoziție/informații privind componenții

3.1. Substanțe

N.A.

3.2. Amestecuri

Identificarea preparatului: FASSA EPOXY 400 COMP.B

Componente periculoase în sensul Regulamentului CLP şi clasificarea corespunzătoare:

Cantitate	Nume	Nr. de Ident.	Clasificare	Număr de înregistrare:
≥30 - <50 %	m-fenilenbis(metilamină)	CAS:1477-55-0 EC:216-032-5	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412, EUH071 Toxicitate Acută Estimată: ATE - Oral: 500mg/kg gc ATE - Inhalare (Praf/ceaţă): 1.5mg/l	01-2119480150-50-xxxx
≥10 - <20 %	alcool benzilic	CAS:100-51-6 EC:202-859-9 Index:603-057-00-5	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Toxicitate Acută Estimată: ATE - Oral: 1200mg/kg gc	01-2119492630-38-xxxx
≥1 - <3 %	formaldehidă, produse de reacție polimerică cu 4-tert-butilfenol, m-fenilenbis(metilamină) și trimetilhexan-1,6-diamină		Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Chronic 3, H412	Scutit
≥1 - <3 %	fenol, stirenat	CAS:61788-44-1 EC:262-975-0	Aquatic Acute 1, H400; Aquatic Chronic 2, H411	01-2119979575-18-xxxx
≥0.5 - <1 %	2,2,4(sau 2,4,4)-trimetilhexan-1, 6-diamină	CAS:25513-64-8 EC:247-063-2	Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Toxicitate Acută Estimată: ATE - Oral: 910mg/kg gc	01-2119560598-25-xxxx
≥0.5 - <1 %	Silice cristalină, cuarț (fracție respirabilă)	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	Scutit
≥0.5 - <1 %	dioxid de titan	CAS:13463-67-7 EC:236-675-5 Index:022-006-00-2	Carc. 2, H351	01-2119489379-17-xxxx

≥0.1 - <0.3 %	3-aminopropiltrietoxisilan	CAS:919-30-2 EC:213-048-4 Index:612-108-00-0	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Toxicitate Acută Estimată: ATE - Oral: 500mg/kg gc	01-2119480479-24-xxxx
≥0.1 - <0.3 %	acetat de 2-metoxi-1-metiletil	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29-xxxx
≥0.1 - <0.3 %	acetat de n-butil	CAS:123-86-4 EC:204-658-1 Index:607-025-00-1	Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	01-2119485493-29-xxxx
≥0.1 - <0.3 %	xilen	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412 Toxicitate Acută Estimată: ATE - Dermică: 1100mg/kg gc ATE - Inhalare (Vapori): 11mg/l	01-2119488216-32-xxxx
≥0.1 - <0.3 %	butanonă	CAS:78-93-3 EC:201-159-0 Index:606-002-00-3	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119457290-43-xxxx
≥0.1 - <0.3 %	etilbenzen	CAS:100-41-4 EC:202-849-4 Index:601-023-00-4	Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 3, H412	01-2119489370-35-xxxx

SECȚIUNEA 4: Măsuri de prim ajutor

4.1. Descrierea măsurilor de prim ajutor

În caz de contact cu pielea:

Îndepărtaţi imediat hainele contaminate şi eliminaţi-l în mod sigur.

OBTINETI ASISTENTA MEDICALA IMEDIATA

În caz de contact cu ochii:

În caz de contact cu ochii, clătiţi cu apă pentru un interval de timp corespunzător şi ţineţi deschise pleoapele, după care consultaţi imediat un oftalmolog.

Protejaţi ochiul lezat.

În caz de ingerare:

Nu daţi nimic de mâncat sau de băut.

Nu provocaţi vomitarea, adresaţi-vă unui medic arătând Fişa de Siguranţă şi eticheta produsului.

În caz de inhalare:

Conduceţi accidentatul la aer liber şi ţineţi-l la cald şi în repaus.

4.2. Cele mai importante simptome și efecte, atât acute, cât și întârziate

Simptomele şi efectele sunt cele preconizate în secIiunea 2 cu privire la pericole.

4.3. Indicații privind orice fel de asistență medicală imediată și tratamentele speciale necesare

În caz de accident sau stare proastă consultaţi imediat un medic (dacă este posibil arătaţi instrucţiunile de folosinţă sau fişa de siguranţă).

SECȚIUNEA 5: Măsuri de combatere a incendiilor

5.1. Mijloace de stingere a incendiilor

Mijloace de stingere corespunzătoare:

CO2, stingătoare cu pulbere, spumă, apă pulverizată.

Mijloace de stingere care nu trebuie să fie utilizate din motive de siguranţă:

Jeturi de apă.

5.2. Pericole speciale cauzate de substanță sau de amestec

Combustia produce fum greu.

Nu inhalați gazele produse prin explozie și/sau prin combustie (monoxid de carbon, dioxid de carbon, oxizi de azot).

5.3. Recomandări destinate pompierilor

Folosiţi dispozitive respiratorii corespunzătoare.

Strângeţi separat apa contaminată folosită pentru stingerea incendiului. Nu o descărcaţi în reţeaua de canalizare.

Dacă este posibil din punct de vedere al siguranţei, îndepărtaţi din zona de pericol imediat recipientele neafectate.

SECȚIUNEA 6: Măsuri împotriva pierderilor accidentale

6.1. Precauții personale, echipament de protecție și proceduri de urgență

Pentru personalul care nu este implicat în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

Duceţi persoanele în loc sigur.

Citiţi măsurile de protecţie prezentate la punctele 7 şi 8.

Pentru personalul care intervine în situații de urgență:

Îmbrăcaţi dispozitivele de protecţie individuală.

6.2. Precauții pentru mediul înconjurător

Împiedicaţi penetrarea în sol/subsol. Împiedicaţi vărsarea în apele de suprafaţă sau în reţeaua de canalizare.

În caz de scurgere de gaz sau penetrare în cursuri de apă, sol sau sistemul de canalizare, informaţi autorităţile răspunzătoare.

6.3. Metode și material pentru izolarea incendiilor și pentru curățenie

Material corespunzător pentru colectare: material absorbant inert (de exemplu, nisip, vermiculit)

Dupa ce produsul a fost recuperat, clatiti suprafata si materialele folosite cu apa

Reţineţi apa de spălat contaminată şi eliminaţi-o.

6.4. Trimiteri către alte secțiuni

Vezi şi paragrafele 8 şi 13

SECȚIUNEA 7: Manipulare și depozitare

7.1. Precauții pentru manipularea în condiții de securitate

Evitați contactul cu pielea și ochii, precum și inhalarea vaporilor și a ceții.

Nu folosiţi recipiente goale înainte de a fi curăţate.

Înaintea operaţiilor de transfer, asiguraţi-vă că în recipiente nu sunt materiale rezidue incompatibile.

Sfaturi privind igiena generală la locul de muncă:

Hainele contaminate trebuie înlocuite înainte de accesul la zona de prânz.

Nu mincati sau beti in timpul lucrului

Se face trimitere şi la paragraful 8 pentru dispozitivele de protecţie recomandate.

7.2. Condiții de depozitare în condiții de securitate, inclusiv eventuale incompatibilități

Păstrați recipientele bine închise într-un spațiu răcoros și bine ventilat, la distanță de surse de căldură.

Ţineţi departe de alimente, băuturi şi hrană pentru animale.

Materiale incompatibile

Vezi pct. 10.5

Instructiuni privind spatiile de depozitare:

Spatii ventilate adecvat

7.3. Utilizare (utilizări) finală (finale) specifică (specifice)

Recomandări

Vezi pct. 1.2

Soluţii specifice pentru sectorul industrial

Nici o utilizare particulară

SECȚIUNEA 8: Controale ale expunerii/protecția personală

8.1. Parametri de control

Limitele de expunere profesională

m-fenilenbis(metilamină)

CAS: 1477-55-0	Tip OEL	ACGIH		Termen scurt Plafon - 0.018 ppm Note: Skin - Eye, skin, and GI irr
	Tip OEL	MAK	Austria	Termen lung 0.1 mg/m3
	Tip OEL	VLEP	Belgia	Termen scurt 0.1 mg/m3
	Tip OEL	VLEP	Franţa	Termen scurt 0.1 mg/m3
	Tip OEL	SUVA	Elveţia	Termen lung 0.1 mg/m3

alcool benzilic

CAS: 100-51-6	Tip OEL	MAK	Germania	Termen lung 22 mg/m3 - 5 ppm; Termen scurt 44 mg/m3 - 10 ppm Note: Inhalable fraction and vapour, Skin
	Tip OEL	TLV	Bulgaria	Termen lung 5 mg/m3
	Tip OEL	TLV	Cehia	Termen lung 40 mg/m3 - 8.88 ppm; Termen scurt 80 mg/m3 - 17.76 ppm
	Tip OEL	SUVA	Elveţia	Termen lung 22 mg/m3 - 5 ppm
	Tip OEL	AGW	Germania	Termen lung 22 mg/m3 - 5 ppm; Termen scurt 44 mg/m3 - 10 ppm

				Note: Inhalable fraction and vapour
	Tip OEL	NDS	Polonia	Termen lung 240 mg/m3
	Tip OEL	MV	Slovenia	Termen lung 22 mg/m3 - 5 ppm; Termen scurt 44 mg/m3 - 10 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 5 mg/m3 Note: Skin

Silice cristalină, cuarț (fracție respirabilă)

CAS: 14808-60-7	Tip OEL	ACGIH		Termen lung 0.025 mg/m3 Note: (R), A2 - Pulm fibrosis, lung cancer
	Tip OEL	UE		Termen lung 0.1 mg/m3 Note: Respirable dust particles
	Tip OEL	MAK	Austria	Termen lung 0.05 mg/m3 Note: Respirable fraction
	Tip OEL	VLEP	Belgia	Termen lung 0.1 mg/m3 Note: Respirable dust; Additional indication "C" means that the agent falls within the scope of Title 2 concerning carcinogenic, mutagenic and reprotoxic agents of Book VI of the Codex on well-being at work.
	Tip OEL	VLEP	Franţa	Termen lung 0.1 mg/m3 Note: Respirable fraction
	Tip OEL	VLEP	Italia	Termen lung 0.1 mg/m3 Note: Respirable dust particles
	Tip OEL	VLA	Spania	Termen lung 0.05 mg/m3 Note: Respirable fraction
	Tip OEL	ÁK	Ungaria	Termen lung 0.1 mg/m3 Note: Respirable fraction
	Tip OEL	MAC	Olanda	Termen lung 0.075 mg/m3 Note: Respirable fraction
	Tip OEL	SUVA	Elveţia	Termen lung 0.15 mg/m3 Note: Respirable aerosol
	Tip OEL	GVI	Croaţia	Termen lung 0.1 mg/m3
	Tip OEL	AGW	Germania	Termen lung 0.05 mg/m3; Termen scurt 0.4 mg/m3 Note: Respirable fraction
	Tip OEL	NDS	Polonia	Termen lung 0.1 mg/m3 Note: Respirable fraction
	Tip OEL	MV	Slovenia	Termen lung 0.15 mg/m3
	Tip OEL	IPRV	Lituania	Termen lung 0.1 mg/m3
	Tip OEL	NGV/KGV	Suedia	Termen lung 0.1 mg/m3 Note: Respirable fraction

dioxid de titan

CAS: 13463-67-7	Tip OEL	ACGIH		Termen lung 0.2 mg/m3 Note: Nanoscale particles - A3 - (R) URT irr, Pneumoconiosis Termen lung 2.5 mg/m3 Note: Finescale particles - A3 - (R) URT irr, Pneumoconiosis
	Tip OEL	MAK	Austria	Termen lung 5 mg/m3; Termen scurt 10 mg/m3 Note: Respirable fraction
	Tip OEL	MAK	Germania	Termen lung 0.3 mg/m3; Termen scurt 2.4 mg/m3 Note: Respirable fraction, except ultrafine particles , Multiplied by the material density
	Tip OEL	VLEP	Belgia	Termen lung 10 mg/m3
	Tip OEL	VLEP	Franţa	Termen lung 11 mg/m3 Note: Inhalable aerosol
	Tip OEL	VLEP	România	Termen lung 10 mg/m3; Termen scurt 15 mg/m3
	Tip OEL	TLV	Bulgaria	Termen lung 10 mg/m3
	Tip OEL	VLA	Spania	Termen lung 10 mg/m3 Note: Inhalable fraction

	Tip OEL	SUVA	Elveţia	Termen lung 3 mg/m3 Note: Respirable aerosol
	Tip OEL	WEL	U.K.	Termen lung 10 mg/m3 Note: Inhalable fraction
				Termen lung 4 mg/m3 Note: Respirable fraction
	Tip OEL	GVI	Croaţia	Termen lung 10 mg/m3 Note: Inhalable fraction
				Termen lung 4 mg/m3 Note: Respirable fraction
	Tip OEL	NDS	Polonia	Termen lung 10 mg/m3 Note: Inhalable fraction
	Tip OEL	IPRV	Lituania	Termen lung 5 mg/m3
	Tip OEL	RV	Letonia	Termen lung 10 mg/m3
	Tip OEL	NGV/KGV	Suedia	Termen lung 5 mg/m3 Note: inhalable aerosol
acetat de 2-metoxi-1-metiletil				
CAS: 108-65-6	Tip OEL	UE		Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Germania	Termen lung 270 mg/m3 - 50 ppm; Termen scurt 270 mg/m3 - 50 ppm
	Tip OEL	VLEP	Belgia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
	Tip OEL	VLEP	Franţa	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Italia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	România	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	TLV	Cehia	Termen lung 270 mg/m3 - 49.14 ppm; Termen scurt 550 mg/m3 - 10.01 ppm Note: Skin
	Tip OEL	VLA	Spania	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	ÁK	Ungaria	Termen lung 275 mg/m3; Termen scurt 550 mg/m3
	Tip OEL	MAC	Olanda	Termen lung 550 mg/m3 - 100 ppm
	Tip OEL	VLE	Portugalia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	SUVA	Elveţia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 275 mg/m3 - 50 ppm
	Tip OEL	WEL	U.K.	Termen lung 274 mg/m3 - 50 ppm; Termen scurt 548 mg/m3 - 100 ppm Note: Skin
	Tip OEL	GVI	Croaţia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	AGW	Germania	Termen lung 270 mg/m3 - 50 ppm; Termen scurt 270 mg/m3 - 50 ppm
	Tip OEL	NDS	Polonia	Termen lung 260 mg/m3; Termen scurt 520 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 250 mg/m3 - 50 ppm; Termen scurt 400 mg/m3 - 75 ppm Note: Skin
	Tip OEL	RV	Letonia	Termen lung 275 mg/m3 - 50 ppm; Termen scurt 550 mg/m3 - 100 ppm Note: Skin

acetat de n-butil

CAS: 123-86-4	Tip OEL	ACGIH		Termen lung 50 ppm; Termen scurt 150 ppm Note: Eye and URT irr
	Tip OEL	UE		Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	MAK	Austria	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 480 mg/m3 - 100 ppm
	Tip OEL	MAK	Germania	Termen lung 480 mg/m3 - 100 ppm; Termen scurt 960 mg/m3 - 200 ppm
	Tip OEL	VLEP	Belgia	Termen lung 238 mg/m3 - 50 ppm; Termen scurt 712 mg/m3 - 150 ppm Note: Butylacetates, all isomers
	Tip OEL	VLEP	Franţa	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	VLEP	Italia	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	VLEP	România	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	TLV	Cehia	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	VLA	Spania	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	ÁK	Ungaria	Termen lung 241 mg/m3; Termen scurt 723 mg/m3
	Tip OEL	MAC	Olanda	Termen lung 241 mg/m3 - 50 ppm; Termen scurt 723 mg/m3 - 150 ppm
	Tip OEL	SUVA	Elveţia	Termen lung 240 mg/m3 - 50 ppm; Termen scurt 720 mg/m3 - 150 ppm
	Tip OEL	WEL	U.K.	Termen lung 724 mg/m3 - 150 ppm; Termen scurt 966 mg/m3 - 200 ppm
	Tip OEL	GVI	Croaţia	Termen lung 724 mg/m3 - 150 ppm; Termen scurt 966 mg/m3 - 200 ppm
	Tip OEL	AGW	Germania	Termen lung 300 mg/m3 - 62 ppm; Termen scurt 600 mg/m3 - 124 ppm
	Tip OEL	NDS	Polonia	Termen lung 240 mg/m3; Termen scurt 720 mg/m3
	Tip OEL	MV	Slovenia	Termen lung 300 mg/m3 - 62 ppm; Termen scurt 600 mg/m3 - 124 ppm

xilen

CAS: 1330-20-7	Tip OEL	ACGIH		Termen lung 20 ppm Note: A4, BEI - URT and eye irr, CNS impair
	Tip OEL	UE		Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm
	Tip OEL	MAK	Germania	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 440 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Belgia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
	Tip OEL	VLEP	Franţa	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	Italia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLEP	România	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	TLV	Cehia	Termen lung 200 mg/m3 - 45.4 ppm; Termen scurt 400 mg/m3 - 90.8 ppm Note: Skin
	Tip OEL	VLA	Spania	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm
	Tip OEL	ÁK	Ungaria	Termen lung 221 mg/m3; Termen scurt 442 mg/m3 Note: Skin
	Tip OEL	MAC	Olanda	Termen lung 210 mg/m3 - 47.5 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	VLE	Portugalia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	SUVA	Elveţia	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 440 mg/m3 - 100 ppm
	Tip OEL	WEL	U.K.	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 441 mg/m3 - 100 ppm Note: Skin

	Tip OEL	GVI	Croaţia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	AGW	Germania	Termen lung 220 mg/m3 - 50 ppm; Termen scurt 440 mg/m3 - 100 ppm Note: Skin
	Tip OEL	NDS	Polonia	Termen lung 100 mg/m3; Termen scurt 200 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
	Tip OEL	RV	Letonia	Termen lung 221 mg/m3 - 50 ppm; Termen scurt 442 mg/m3 - 100 ppm Note: Skin
butanonă				
CAS: 78-93-3	Tip OEL	ACGIH		Termen lung 75 ppm; Termen scurt 150 ppm Note: BEI Skin - URT irr, CNS and PNS impair
	Tip OEL	UE		Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	MAK	Austria	Termen lung 295 mg/m3 - 100 ppm; Termen scurt 590 mg/m3 - 200 ppm Note: Skin
	Tip OEL	MAK	Germania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 600 mg/m3 - 200 ppm Note: Skin
	Tip OEL	VLEP	Belgia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLEP	Franţa	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLEP	Italia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLEP	România	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	TLV	Bulgaria	Termen lung 590 mg/m3; Termen scurt 885 mg/m3
	Tip OEL	TLV	Cehia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	VLA	Spania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	ÁK	Ungaria	Termen lung 600 mg/m3; Termen scurt 900 mg/m3 Note: Skin
	Tip OEL	MAC	Olanda	Termen lung 590 mg/m3 - 197 ppm; Termen scurt 900 mg/m3 - 300 ppm Note: Skin
	Tip OEL	VLE	Portugalia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	SUVA	Elveţia	Termen lung 590 mg/m3 - 200 ppm; Termen scurt 590 mg/m3 - 200 ppm
	Tip OEL	WEL	U.K.	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 899 mg/m3 - 300 ppm Note: Skin
	Tip OEL	GVI	Croaţia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm
	Tip OEL	AGW	Germania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 600 mg/m3 - 200 ppm Note: Skin 15
	Tip OEL	NDS	Polonia	Termen lung 450 mg/m3; Termen scurt 900 mg/m3 Note: Skin
	Tip OEL	MV	Slovenia	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3 - 300 ppm Note: Skin
	Tip OEL	IPRV	Lituania	Termen lung 600 mg/m3 - 200 ppm; Termen scurt 900 mg/m3
etilbenzen				
CAS: 100-41-4	Tip OEL	ACGIH		Termen lung 20 ppm Note: A3, BEI - URT irr, kidney dam (nephropathy), cochlear impair
	Tip OEL	UE		Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
	Tip OEL	MAK	Austria	Termen lung 440 mg/m3 - 100 ppm; Termen scurt 880 mg/m3 - 200 ppm
	Tip OEL	MAK	Germania	Termen lung 88 mg/m3 - 20 ppm; Termen scurt 176 mg/m3 - 40 ppm Note: Skin
	Tip OEL	VLEP	Belgia	Termen lung 87 mg/m3 - 20 ppm; Termen scurt 551 mg/m3 - 125 ppm Note: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the

result of both direct contact and its presence in the air.

Tip OEL	VLEP	Franţa	Termen lung 88.4 mg/m3 - 20 ppm; Termen scurt 442 mg/m3 - 100 ppm
Tip OEL	VLEP	Italia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm
Tip OEL	VLEP	România	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm
Tip OEL	TLV	Cehia	Termen lung 200 mg/m3 - 45.4 ppm; Termen scurt 500 mg/m3 - 113.5 ppm Note: Skin
Tip OEL	VLA	Spania	Termen lung 441 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
Tip OEL	ÁK	Ungaria	Termen lung 442 mg/m3; Termen scurt 884 mg/m3
Tip OEL	MAC	Olanda	Termen lung 215 mg/m3; Termen scurt 430 mg/m3
Tip OEL	VLE	Portugalia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
Tip OEL	SUVA	Elveţia	Termen lung 435 mg/m3 - 100 ppm; Termen scurt 435 mg/m3 - 100 ppm
Tip OEL	WEL	U.K.	Termen lung 441 mg/m3 - 100 ppm; Termen scurt 552 mg/m3 - 125 ppm
Tip OEL	GVI	Croaţia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin
Tip OEL	AGW	Germania	Termen lung 88 mg/m3 - 20 ppm; Termen scurt 176 mg/m3 - 40 ppm Note: Skin
Tip OEL	NDS	Polonia	Termen lung 200 mg/m3; Termen scurt 400 mg/m3
Tip OEL	MV	Slovenia	Termen lung 442 mg/m3 - 100 ppm; Termen scurt 884 mg/m3 - 200 ppm Note: Skin

Valori limită de expunere PNEC

m-fenilenbis(metilamină)

CAS: 1477-55-0
- Cale de expunere: Apă sărată; PNEC Limită: 0.009 mg/l
- Cale de expunere: Apă dulce; PNEC Limită: 0.094 mg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.043 mg/kg
- Cale de expunere: Apă dulce; PNEC Limită: 0.43 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 0.045 mg/kg
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l

alcool benzilic

CAS: 100-51-6
- Cale de expunere: Apă dulce; PNEC Limită: 1 mg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.1 mg/l
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 39 mg/l
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 5.27 mg/kg
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.527 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 0.456 mg/kg

fenol, stirenat

CAS: 61788-44-1
- Cale de expunere: Apă dulce; PNEC Limită: 0.004 mg/l
- Cale de expunere: Apă sărată; PNEC Limită: 0.4 µg/l
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 36.2 mg/l
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.248 mg/kg
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 24.8 µg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 47.3 µg/kg

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

CAS: 25513-64-8
- Cale de expunere: Apă sărată; PNEC Limită: 0.01 mg/l
- Cale de expunere: Apă dulce; PNEC Limită: 0.102 mg/l
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 72 mg/l
- Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.622 mg/kg
- Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.062 mg/kg
- Cale de expunere: Sol (agricol); PNEC Limită: 10 mg/kg

3-aminopropiltrietoxisilan

CAS: 919-30-2
- Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 1.3 mg/l

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 Cale de expunere: Apă dulce; PNEC Limită: 0.635 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.064 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 100 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 3.29 mg/kg

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.329 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 0.29 mg/kg

acetat de n-butil

CAS: 123-86-4 Cale de expunere: Apă sărată; PNEC Limită: 0.018 mg/l

Cale de expunere: Apă dulce; PNEC Limită: 0.18 mg/l

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.098 mg/kg

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.981 mg/kg

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 35.6 mg/l

Cale de expunere: Sol (agricol); PNEC Limită: 0.09 mg/kg

xilen

CAS: 1330-20-7 Cale de expunere: Apă sărată; PNEC Limită: 0.327 mg/l

Cale de expunere: Apă dulce; PNEC Limită: 0.327 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 6.58 mg/l

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 12.46 mg/kg

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 12.46 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 2.31 mg/kg

butanonă

CAS: 78-93-3 Cale de expunere: Apă dulce; PNEC Limită: 55.8 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 55.8 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 284.74 mg/kg

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 709 mg/l

Cale de expunere: Lanț alimentar; PNEC Limită: 1000 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 22.5 mg/kg

etilbenzen

CAS: 100-41-4 Cale de expunere: Apă dulce; PNEC Limită: 0.1 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.01 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 9.6 mg/l

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 13.7 mg/kg

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 1.37 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 2.68 mg/kg

Nivel Derivat Fără Efect (DNEL)

m-fenilenbis(metilamină)

CAS: 1477-55-0 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 0.33 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător profesionist: 0.2 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 1.2 mg/m3

alcool benzilic

CAS: 100-51-6 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător profesionist: 110 mg/m3; Consumator: 27 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 22 mg/m3; Consumator: 5.4 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător profesionist: 40 mg/kg; Consumator: 20 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 8 mg/kg; Consumator: 4 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 20 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 4 mg/kg

fenol, stirenat

CAS: 61788-44-1 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 7.4 mg/m3; Consumator: 1.31 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 2.1 mg/kg; Consumator: 0.75 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 0.75 mg/kg

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

CAS: 25513-64-8 Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 0.05 mg/kg

3-aminopropiltrietoxisilan

CAS: 919-30-2 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 14 mg/m3; Consumator: 3.5 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 2 mg/kg; Consumator: 1 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 1 mg/kg

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 796 mg/kg; Consumator: 320 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 36 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 500 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 275 mg/m3; Consumator: 33 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 550 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Consumator: 33 mg/m3

acetat de n-butil

CAS: 123-86-4 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 300 mg/m3; Consumator: 35.7 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător: 600 mg/m3; Consumator: 300 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător: 300 mg/m3; Consumator: 35.7 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător: 600 mg/m3; Consumator: 300 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 11 mg/kg; Consumator: 6 mg/kg

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător: 11 mg/kg; Consumator: 6 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 2 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 2 mg/kg

xilen

CAS: 1330-20-7 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 221 mg/m3; Consumator: 65.3 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Lucrător profesionist: 442 mg/m3; Consumator: 260 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 442 mg/m3; Consumator: 260 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător profesionist: 221 mg/m3; Consumator: 65.3 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 212 mg/kg; Consumator: 125 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 12.5 mg/kg

butanonă

CAS: 78-93-3 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 600 mg/m3; Consumator: 106 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 1161 mg/kg; Consumator: 412 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 31 mg/kg

etilbenzen

CAS: 100-41-4 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 77 mg/m3; Consumator: 15 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 293 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 180 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 1.6 mg/kg

8.2. Controale ale expunerii

Asigurați o ventilație adecvată. Atunci când este rezonabil posibil, aceasta se poate obține prin utilizarea de ventilație de schimb și a unei aspirații generale bune.

Protectia ochilor

Ochelari cu protecție laterală (EN 16321).

Protectia pielii

Utilizați îmbrăcăminte corespunzătoare pentru protecția completă a pielii, în funcție de activitate și expunere (EN 14605/EN 13982), de exemplu salopetă de lucru, șorț, încălțăminte de siguranță, îmbrăcăminte corespunzătoare.

Protectia mainilor

Nu există niciun material sau combinație de materiale pentru mănuși care să poată garanta o rezistență nelimitată la orice produs chimic sau combinație de produse.

Pentru manipulare prelungită sau repetată, utilizați mănuși rezistente la produse chimice.

Tipul de mănuși adecvate (EN 374/EN 16523); FKM (fluor cauciuc): grosime >= 0.4 mm; timp de penetrare >= 480 min. NBR (cauciuc nitrilic): grosime >= 0.4 mm; timp de penetrare >= 480 min

Alegerea mănușilor potrivite nu depinde numai de material, ci și de alte caracteristici de calitate care variază de la un producător la altul, precum și de metodele și timpii de utilizare a amestecului.

Protectie respiratorie

Dacă lucrătorii sunt expuși la concentrații mai mari decât limitele de expunere, trebuie să poarte aparate respiratorii certificate.

Filtru amestec (EN 14387): mască cu filtru A-P2.

Controale de expunere ambientală:

Vezi pct. 6.2

Măsurile de igienă și tehnice

Vezi alineatul 7.

SECȚIUNEA 9: Proprietățile fizice și chimice

9.1. Informații privind proprietățile fizice și chimice de bază

Stare fizică: Lichid

Aspect: Lichid

Culoare: alb

Miros: caracteristic

Punctul de topire/punctul de înghețare: N.D.
Punctul de fierbere sau punctul inițial de fierbere și intervalul de fierbere: N.D.
Inflamabilitatea: N.A.
Limita inferioară și superioară de explozie: N.D.
Punctul de aprindere: > 93°C
Temperatura de autoaprindere: N.D.
Temperatura de descompunere: N.A.
pH: >=10.50<=11.50 (Metoda internă)
Viscozitatea cinematică: N.A.
Solubilitatea in apa: Ușor solubil
Solubilitate în ulei: N.A.
Coeficientul de partiție n-octanol/apă (valoarea log): N.A.
Presiunea vaporilor: N.D.
Densitatea și/sau densitatea relativă: 1.51 kg/l (Metoda internă)
Densitatea relativă a vaporilor: N.D. N.A.
Caracteristicile particulei:
Dimensiunea particulei: N.A.

9.2. Alte informații

Proprietati explozive: N.A. (Evaluare internă)
Proprietati oxidante: N.A. (Evaluare internă)

SECȚIUNEA 10: Stabilitate și reactivitate

10.1. Reactivitate

Stabilă în condiţii normale

10.2. Stabilitate chimică

Stabilă în condiţii normale

10.3. Posibilitatea de reacții periculoase

Se poate aprinde in contact cu agenti puternic oxidanti
Din cauza efectului căldurii sau în caz de incendiu, se pot elibera oxizi de carbon și vapori care pot fi dăunători pentru sănătate.

10.4. Condiții de evitat

Evitați apropierea de surse de căldură.

10.5. Materiale incompatibile

Agenți de oxidare puternici, agenți de reducere puternici, amine alifatice și aromatice.
Vezi pct. 10.3

10.6. Produși de descompunere periculoși

În cazul depozitării și manipulării adecvate, nu există produse de descompunere periculoase.
Vezi pct. 5.2

SECȚIUNEA 11: Informații toxicologice

11.1. Informații privind clasele de pericol definite în Regulamentul (CE) nr. 1272/2008

Informații toxicologice ale produsului:

a) toxicitate acută	Produsul este clasificat: Acute Tox. 4(H302)
b) corodarea/iritarea pielii	Produsul este clasificat: Skin Corr. 1B(H314)
c) lezarea gravă/iritarea ochilor	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
d) sensibilizarea căilor respiratorii sau a pielii	Produsul este clasificat: Skin Sens. 1A(H317)
e) mutagenitatea celulelor germinative	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
f) cancerogenitatea	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
g) toxicitatea pentru reproducere	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
h) STOT (toxicitate asupra organelor țintă specifice) - expunere unică	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
i) STOT (toxicitate asupra	Neclasificat

organelor țintă specifice) - expunere repetată	
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
j) pericol prin aspirare	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

Informații toxicologice referitoare la substanțele principale găsite în acest produs:

m-fenilenbis(metilamină)

CAS: 1477-55-0	a) toxicitate acută	ATE - Oral: 500 mg/kg gc
		ATE - Inhalare (Praf/ceaţă): 1.5 mg/l
		LD50 Piele Șobolan > 3100 mg/kg
		LD50 Oral Șobolan 930 mg/kg
		LC50 Inhalări de aerosoli Șobolan 1.34 mg/l 4h

alcool benzilic

CAS: 100-51-6	a) toxicitate acută	ATE - Oral: 1200 mg/kg gc
		LD50 Oral Șobolan 1620 mg/kg

fenol, stirenat

CAS: 61788-44-1	a) toxicitate acută	LD50 Oral Șobolan > 2000 mg/kg
		LD50 Piele Șobolan > 2000 mg/kg

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

CAS: 25513-64-8	a) toxicitate acută	ATE - Oral: 910 mg/kg gc

dioxid de titan

CAS: 13463-67-7	a) toxicitate acută	LD50 Oral Șobolan > 5000 mg/kg
		LC50 Praf de inhalare Șobolan > 6.82 mg/l 4h

3-aminopropiltrietoxisilan

CAS: 919-30-2	a) toxicitate acută	ATE - Oral: 500 mg/kg gc
		LD50 Oral Șobolan 1490 mg/kg
		LD50 Piele Iepure 4075 mg/kg

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6	a) toxicitate acută	LD50 Oral Șobolan > 5000 mg/kg
		LD50 Piele Iepure > 5000 mg/kg
		LC0 Vapori de inhalare Șobolan > 4345 ppm 6h

acetat de n-butil

CAS: 123-86-4	a) toxicitate acută	LD50 Oral Șobolan 10760 mg/kg
		LD50 Piele Iepure 14112 mg/kg
		LC50 Vapori de inhalare Șobolan > 21.1 mg/l 4h

xilen

CAS: 1330-20-7	a) toxicitate acută	ATE - Dermică: 1100 mg/kg gc
		ATE - Inhalare (Vapori): 11 mg/l
		LD50 Oral Șobolan 3523 mg/kg

butanonă

CAS: 78-93-3	a) toxicitate acută	LD50 Oral Șobolan > 2193 mg/kg
		LD50 Piele Iepure > 5000 mg/kg

etilbenzen

CAS: 100-41-4	a) toxicitate acută	LD50 Oral Șobolan 3500 mg/kg
		LD50 Piele Iepure 15400 mg/kg
		LC50 Inhalare Șobolan 17629 mg/m3 4h

11.2. Informații privind alte pericole

Proprietăți de perturbator endocrin:

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

SECȚIUNEA 12: Informații ecologice

A se adopta bune practici de productie astfel incat produsul sa nu fie eliberat in mediu

12.1. Toxicitate

Informaţii Ecotoxicologice:

Nociv pentru mediul acvatic cu efecte pe termen lung.

Lista proprietatilor Eco-toxicologice ale produsului

Produsul este clasificat: Aquatic Chronic 3(H412)

Lista componentelor cu proprietăţi ecotoxicologice

m-fenilenbis(metilamină)

CAS: 1477-55-0
a) Toxicitate acvatică acută: LC50 Pește 87.6 mg/l 96h
a) Toxicitate acvatică acută: EC50 Alge 20.3 mg/l 72h
a) Toxicitate acvatică acută: EC50 Daphnia 15.2 mg/l 48h
b) Toxicitatea acvatică cronică: NOEC Daphnia 4.7 mg/l 21d
b) Toxicitatea acvatică cronică: NOEC Alge 10.5 mg/l 72h

alcool benzilic

CAS: 100-51-6
a) Toxicitate acvatică acută: LC50 Pește 460 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 230 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 770 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 51 mg/l 21d
b) Toxicitatea acvatică cronică: NOEC Alge 310 mg/l 72h

fenol, stirenat

CAS: 61788-44-1
a) Toxicitate acvatică acută: LC50 Pește 5.6 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 4.6 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 1.35 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Pește 61.8 µg/l
b) Toxicitatea acvatică cronică: NOEC Daphnia 0.2 mg/l
b) Toxicitatea acvatică cronică: NOEC Alge 0.42 mg/l

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

CAS: 25513-64-8
a) Toxicitate acvatică acută: LC50 Pește 174 mg/l 48h
a) Toxicitate acvatică acută: EC50 Daphnia 31.5 mg/l 24h
a) Toxicitate acvatică acută: EC50 Alge 43.5 mg/l 72h

dioxid de titan

CAS: 13463-67-7
a) Toxicitate acvatică acută: LC50 Pește > 1000 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia > 1000 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 61 mg/l 72h

3-aminopropiltrietoxisilan

CAS: 919-30-2
a) Toxicitate acvatică acută: LC50 Pește > 934 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 331 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 603 mg/l 72h

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6
a) Toxicitate acvatică acută: LC50 Pește 134 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 408 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge > 1000 mg/l 96h
b) Toxicitatea acvatică cronică: NOEC Pește 47.5 mg/l - 14 d

acetat de n-butil

CAS: 123-86-4
a) Toxicitate acvatică acută: LC50 Pește 18 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 44 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 675 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 23 mg/l - 21d

butanonă

CAS: 78-93-3
a) Toxicitate acvatică acută: LC50 Pește 2973 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 308 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 1229 mg/l 96h

etilbenzen

CAS: 100-41-4 a) Toxicitate acvatică acută: LC50 Pește 4.2 mg/l 96h

a) Toxicitate acvatică acută: EC50 Daphnia 1.8 mg/l 48h

a) Toxicitate acvatică acută: EC50 Alge 3.6 mg/l 96h

b) Toxicitatea acvatică cronică: NOEC Daphnia 1 mg/l - 7d

12.2. Persistență și degradabilitate

m-fenilenbis(metilamină)

CAS: 1477-55-0 Degradabil în mod lent

alcool benzilic

CAS: 100-51-6 Degradabil în mod rapid

fenol, stirenat

CAS: 61788-44-1 Degradabil în mod lent

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

CAS: 25513-64-8 Degradabil în mod lent

3-aminopropiltrietoxisilan

CAS: 919-30-2 Degradabil în mod lent

acetat de 2-metoxi-1-metiletil

CAS: 108-65-6 Degradabil în mod rapid

acetat de n-butil

CAS: 123-86-4 Degradabil în mod rapid

xilen

CAS: 1330-20-7 Degradabil în mod rapid

butanonă

CAS: 78-93-3 Degradabil în mod rapid

etilbenzen

CAS: 100-41-4 Degradabil în mod rapid

12.3. Potențial de bioacumulare

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

CAS: 25513-64-8 Nu este supus bioacumulării

dioxid de titan

CAS: 13463-67-7 Nu este supus bioacumulării

3-aminopropiltrietoxisilan

CAS: 919-30-2 Nu este supus bioacumulării

xilen

CAS: 1330-20-7 Nu este supus bioacumulării

12.4. Mobilitate în sol

2,2,4(sau 2,4,4)-trimetilhexan-1,6-diamină

CAS: 25513-64-8 Test: Log Koc; Valoare: 1.400

dioxid de titan

CAS: 13463-67-7 Imobil

3-aminopropiltrietoxisilan

CAS: 919-30-2 Test: Log Koc; Valoare: -0.600

acetat de n-butil

CAS: 123-86-4 Test: Log Koc; Valoare: 1.300

xilen

CAS: 1330-20-7 Test: Log Koc; Valoare: 2.730

12.5. Rezultatele evaluărilor PBT și vPvB

În baza datelor disponibile, produsul nu conţine substanţe PBT/vPvB în procentaj ≥ de 0.1%.

12.6. Proprietăți de perturbator endocrin

Nu conține perturbatori endocrini prezenți în concentrații >= 0,1%

12.7. Alte efecte adverse

N.A.

SECȚIUNEA 13: Considerații privind eliminarea

13.1. Metode de tratare a deșeurilor

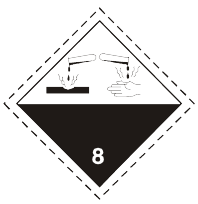
A se recupera, daca este posibil. A se trimite catre punctele de depozitare sau de incinerare, in conditii controlate. A se respecta regulamentele locale in vigoare

Nu permiteți pătrunderea produsului în sistemul de canalizare sau în cursurile de apă.

Recipientele contaminate cu produs, în conformitate cu dispozițiile legale locale sau naționale.

Odată ce produsul a expirat, acesta trebuie eliminat în conformitate cu reglementările în vigoare.

SECȚIUNEA 14: Informații referitoare la transport



14.1. Numărul ONU sau numărul de identificare

2735

14.2. Denumirea corectă ONU pentru expediție

ADR-Nume transport îmbarcare: AMINE LICHIDE, COROZIVE, N.D. (formaldehidă, produse de reacție polimerică cu 4-tert-butilfenol, m-fenilenbis(metilamină) și trimetilhexan-1,6-diamină)

IATA-Nume transport îmbarcare: AMINES, LIQUID, CORROSIVE, N.O.S. POLYAMINES, LIQUID, CORROSIVE, N.O.S. (formaldehidă, produse de reacție polimerică cu 4-tert-butilfenol, m-fenilenbis(metilamină) și trimetilhexan-1,6-diamină)

IMDG-Nume transport îmbarcare: AMINES, LIQUID, CORROSIVE, N.O.S. POLYAMINES, LIQUID, CORROSIVE, N.O.S. (formaldehidă, produse de reacție polimerică cu 4-tert-butilfenol, m-fenilenbis(metilamină) și trimetilhexan-1,6-diamină)

14.3. Clasa (clasele) de pericol pentru transport

ADR-clasa: 8

IATA-Clasa: 8

IMDG-Clasa: 8

14.4. Grupul de ambalare

ADR-Grup Ambalare: II

IATA-Grup Ambalare: II

IMDG-Grup Ambalare: II

14.5. Pericole pentru mediul înconjurător

Poluant marin: Nu

Poluant ambiental: Nu

IMDG-EMS: F-A, S-B

14.6. Precauții speciale pentru utilizatori

Drumuri şi Căi Ferate (ADR-RID):

ADR-Etichetă: 8

ADR - Număr de identificare a pericolului: 80

ADR-Dispoziţii Speciale: 274

ADR-Cod de restricţie în tunel:

Aer (IATA):

IATA-Aeronavă de pasagerit: 851

IATA-Aeronavă de marfă: 855

IATA-Etichetă: 8

IATA-Riscul secundar: -

IATA-Erg: 8L

IATA-Dispoziţii Speciale: A3 A803

Mare (IMDG):

IMDG-Depozitare și manipulare: Category A

IMDG-Segregare: SG35 SGG18

IMDG-Riscul secundar: -

IMDG-Dispoziţii Speciale: 274

14.7. Transportul maritim în vrac în conformitate cu instrumentele OMI

N.A.

SECȚIUNEA 15: Informații de reglementare

15.1. Regulamente/legislație în domeniul securității, al sănătății și al mediului specifice (specifică) pentru substanța sau amestecul în cauză

Directiva 98/24/CE (Riscuri în legătură cu agenţii chimici la locul de muncă)

Directiva 2000/39/CE (Valori limită a expunerii profesionale)

Directiva 2010/75/UE

Regulamentul (CE) nr. 1907/2006 (REACH)

Regulamentul (CE) nr. 1272/2008 (CLP)

Regulamentul (CE) nr. 790/2009 (ATP 1 CLP) și (EU) nr. 758/2013

Regulamentul (EU) nr. 2020/878

Regulamentul (EU) nr. 286/2011 (ATP 2 CLP)

Regulamentul (EU) nr. 618/2012 (ATP 3 CLP)

Regulamentul (EU) nr. 487/2013 (ATP 4 CLP)

Regulamentul (EU) nr. 944/2013 (ATP 5 CLP)

Regulamentul (EU) nr. 605/2014 (ATP 6 CLP)

Regulamentul (EU) nr. 2015/1221 (ATP 7 CLP)

Regulamentul (EU) nr. 2016/918 (ATP 8 CLP)

Regulamentul (EU) nr. 2016/1179 (ATP 9 CLP)

Regulamentul (EU) nr. 2017/776 (ATP 10 CLP)

Regulamentul (EU) nr. 2018/669 (ATP 11 CLP)

Regulamentul (EU) nr. 2018/1480 (ATP 13 CLP)

Regulamentul (EU) nr. 2019/521 (ATP 12 CLP)

Regulamentul (EU) nr. 2020/217 (ATP 14 CLP)

Regulamentul (EU) nr. 2020/1182 (ATP 15 CLP)

Regulamentul (EU) nr. 2021/643 (ATP 16 CLP)

Regulamentul (EU) nr. 2021/849 (ATP 17 CLP)

Regulamentul (EU) nr. 2022/692 (ATP 18 CLP)

Regulamentul (UE) nr. 2023/707

Regulamentul (EU) nr. 2023/1434 (ATP 19 CLP)

Regulamentul (EU) nr. 2023/1435 (ATP 20 CLP)

Regulamentul (EU) nr. 2024/197 (ATP 21 CLP)

Regulamentul (EU) nr. 2024/2564 (ATP 22 CLP)

Regulamentul (EU) nr. 2024/2865

Regulamentul (EU) nr. 2025/1222 (ATP 23 CLP)

Restricţii referitoare la produsele sau substanţele conţinute de acestea conform Anexei XVII Regulamentul (CE) 1907/2006 (REACH) cu modificările ulterioare:

Restricții referitoare la produs: 3

Restricții referitoare la substanțele conținute: 40, 75

Dispoziții în legătură cu directiva EU 2012/18 (Seveso III):

Nici una

Regulamentul (UE) nr. 649/2012 (Regulamentul PIC)

Nu există substanțe menționate

Clasa Germană a Periculozităţii Apei

Clasa 3: foarte periculos.

Substanţe SVHC:

În baza datelor disponibile, produsul nu conţine substanţe SVHC în procentaj ≥ de 0.1%.

15.2. Evaluarea securității chimice

Nu a fost efectuată nici o Evaluare de Securitate Chimică pentru amestecul. Consultați scenariile de expunere ale substanțelor anexate acestei fișe de securitate. La consultarea scenariilor, luați în considerare eventualele limitări de utilizare indicate în secțiunea 1.2.

SECȚIUNEA 16: Alte informații

Cod	Descriere
EUH066	Expunerea repetată poate provoca uscarea sau crăparea pielii.
EUH071	Corosiv pentru căile respiratorii.
H225	Lichid şi vapori foarte inflamabili.
H226	Lichid şi vapori inflamabili.
H302	Nociv în caz de înghiţire.
H304	Poate fi mortal în caz de înghiţire şi de pătrundere în căile respiratorii.
H312	Nociv în contact cu pielea.
H314	Provoacă arsuri grave ale pielii şi lezarea ochilor.
H315	Provoacă iritarea pielii.
H317	Poate provoca o reacţie alergică a pielii.
H318	Provoacă leziuni oculare grave.
H319	Provoacă o iritare gravă a ochilor.
H332	Nociv în caz de inhalare.
H335	Poate provoca iritarea căilor respiratorii.
H336	Poate provoca somnolenţă sau ameţeală.
H351	Susceptibil de a cauza cancer dacă este inhalat.
H372	Provoacă daune organelor în caz de expunere îndelungată sau repetată prin inhalare.
H373	Poate provoca leziuni ale organelor în caz de expunere prelungită sau repetată.
H373	Poate provoca daune organelor în caz de expunere îndelungată sau repetată prin inhalare şi prin inghiţire.
H400	Foarte toxic pentru mediul acvatic.
H411	Toxic pentru mediul acvatic cu efecte pe termen lung.
H412	Nociv pentru mediul acvatic cu efecte pe termen lung.

Cod	Clasa de pericol şi categoria de pericol	Descriere
2.6/2	Flam. Liq. 2	Lichid inflamabil, Categoria 2
2.6/3	Flam. Liq. 3	Lichid inflamabil, Categoria 3
3.1/4/Dermal	Acute Tox. 4	Toxicitate acută (dermică), Categoria 4
3.1/4/Inhal	Acute Tox. 4	Toxicitate acută (inhalare), Categoria 4
3.1/4/Oral	Acute Tox. 4	Toxicitate acută (orală), Categoria 4
3.10/1	Asp. Tox. 1	Pericol prin aspirare, Categoria 1
3.2/1A	Skin Corr. 1A	Corodarea pielii, Categoria 1A
3.2/1B	Skin Corr. 1B	Corodarea pielii, Categoria 1B
3.2/2	Skin Irrit. 2	Iritarea pielii, Categoria 2
3.3/1	Eye Dam. 1	Lezarea gravă a ochilor, Categoria 1
3.3/2	Eye Irrit. 2	Iritarea ochilor, Categoria 2
3.4.2/1A	Skin Sens. 1A	Sensibilizarea pielii, Categoria 1A
3.4.2/1B	Skin Sens. 1B	Sensibilizarea pielii, Categoria 1B
3.6/2	Carc. 2	Cancerigenitate, Categoria 2
3.8/3	STOT SE 3	Toxicitate asupra unui organ ţintă specific – o singură expunere, Categoria 3
3.9/1	STOT RE 1	Toxicitate asupra unui organ ţintă specific – expunere repetată, Categoria 1
3.9/2	STOT RE 2	Toxicitate asupra unui organ ţintă specific – expunere repetată, Categoria 2
4.1/A1	Aquatic Acute 1	Pericol acut pentru mediul acvatic, Categoria 1
4.1/C2	Aquatic Chronic 2	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 2
4.1/C3	Aquatic Chronic 3	Pericol cronic (pe termen lung) pentru mediul acvatic, Categoria 3

Clasificarea și procedura utilizate pentru realizarea clasificării pentru amestecuri în conformitate cu Regulamentul (CE) nr. 1272/2008 [CLP]:

Clasificare conform Regulamentului (CE) nr. 1272/2008	Procedura de clasificare
Acute Tox. 4, H302	Metoda de calcul
Skin Corr. 1B, H314	Metoda de calcul
Skin Sens. 1A, H317	Metoda de calcul

Aquatic Chronic 3, H412 Metoda de calcul

Acest document a fost întocmit de un tehnician competent în domeniul SDS şi care este pregătit în mod corespunzător.

Principalele surse bibliografice:

ECDIN - Rețeaua de date și informații de mediu privind produsele chimice - Centrul comun de cercetare, Comisia Comunităților Europene

SAX PROPRIETĂȚI PERICULOASE ALE MATERIALELOR INDUSTRIALE - Ediția a opta - Van Nostrand Reinold

Fișe tehnice de securitate ale furnizorilor de materii prime.

Aceste informatii se bazeaza pe cunostintele detinute la data mentionata mai sus. Se refera numai la produsul mentionat si nu constitue o garantie a calitatii pentru cazurile particulare

Este de datoria utilizatorului sa se asigure ca aceste informatii sunt adecvate si corespund domeniului specific de utilizare

Aceasta FTS anuleaza si inlocuieste pe cele emise anterior.

Legenda cu abrevierile şi acronimele folosite în fişa cu date de securitate

ACGIH: Conferința Americană a Igieniștilor Industriali Guvernamentali

ADR: Acordul European referitor la Încărcătura Internaţională de Bunuri Periculoase pe Drumuri

ATE: Toxicitate Acută Estimată

ATEmix: Estimarea toxicităţii acute (Amestecuri)

BEI: Index de Expunere Biologică

CAS: Chemical Abstracts Service (departament al Societăţii Americane de Chimie)

CAV: Centrul de Otrăvuri

CE: Comunitatea Europeană

CLP: Clasificare, Etichetare, Ambalare

CMR: Cancerigene, Mutagene și Toxice pentru reproducere

COV: Compus Organic Volatil

CSA: Evaluarea Securității Chimice

CSR: Raportul Securității Chimice

DNEL: Nivel Derivat Fără Efect

EC50: Jumătate din Concentrația Efectivă Maximă

ECHA: Agenția Europeană pentru Produse Chimice

EINECS: Inventarul European al Substanţelor Chimice Existente pe piaţă

ES: Scenariul de Expunere

GefStoffVO: Ordonanţă în legătură cu Substanţele Periculoase, Germania

GHS: Sistemul Mondial Armonizat de Clasificare şi Etichetare a Produselor Chimice

IARC: Agenția Internațională pentru Cercetare în Domeniul Cancerului

IATA: Asociaţia Internaţională de Transport Aerian

IC50: jumătate din concentrația inhibitorie maximă

IMDG: Coduri Maritime Internaţionale pentru Bunurile Periculoase

LC50: Concentraţia letală pentru un procent de 50% din populaţia test

LD50: Doza letală pentru un procent de 50% din populaţia test

LDLo: Doză Letală Scăzută

N.A.: Nu se aplică

N/A: Nu se aplică

N/D: Nedefinit/Nu este disponibil

N.D.: Nu este disponibil

NIOSH: Institutul Național pentru Securitate și Sănătate în Muncă

NOAEL: Nu există un Nivel al Efectelor Adverse Observat

OSHA: Administrația Securității și Sănătății în Muncă.

PBT: Persistente, Bioacumulative și Toxice

PGK: Instrucțiuni de ambalare

PNEC: Concentraţia Fără Efect Prevăzută

PSG: Pasageri

RID: Regulamentul Referitor la Transportul Internaţional de Bunuri Periculoase pe Calea Ferată

STEL: Limita de Expunere pe Termen Scurt

STOT: Toxicitatea pentru Organul Ţintă Specific

TLV: Valoarea Limită a Pragului

TLV-TWA: Valoarea Limită a Pragului pentru Durata Ponderată Medie 8 ore pe zi (Standard ACGIH)

vPvB: Foarte Persistent, Foarte Bioacumulativ.

WGK: Clasa Germană a Periculozităţii Apei

Paragrafe modificate de la ultima revizuire:

- SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii
- SECȚIUNEA 2: Identificarea pericolelor
- SECȚIUNEA 3: Compoziție/informații privind componenții
- SECȚIUNEA 8: Controale ale expunerii/protecția personală

- SECȚIUNEA 9: Proprietățile fizice și chimice
- SECȚIUNEA 11: Informații toxicologice
- SECȚIUNEA 12: Informații ecologice
- SECȚIUNEA 15: Informații de reglementare
- SECȚIUNEA 16: Alte informații

n-butyl acetate

Substance identification
Chemical Name: n-butyl acetate
CAS number: 123-86-4
Date - Version: 07/06/2017 10.0

1. USE IN COATINGS. USE IN PAINTS. USE IN PRINTING INKS. USE IN ADHESIVES.

Short title of the exposure scenario: Use in coatings. Use in paints. Use in printing inks. Use in adhesives.
SU3; ERC4; PROC7, PROC10, PROC13

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC4.1a.v1

Operating conditions

Yearly amount used in EU: 5,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 0.8%
Emission factor in water: 2%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Suitable measures to reduce emissions to air can be: Exhaust gas treatment with thermal oxidation.
Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.925355
Risk from environmental exposure is driven by soil.
Maximum safe use amount: 1080.7 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application

Area of use: Industrial

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Ensure that the activity is performed outside the operator’s respiratory zone (head-product distance greater than 1m).
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Avoid splashes.
Make sure the spray booth is used.
Wear suitable clothing.

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 4.2857 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.38961
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 0.0001 mg/m³
Risk Characterization Ratio (RCR): 0.000001

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes

Area of use: Industrial

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.7429 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.249351
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping and pouring

Area of use: Industrial

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 1.3714 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.124675
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra

2. USE IN COATINGS. USE IN PAINTS. USE IN PRINTING INKS. USE IN ADHESIVES.

Short title of the exposure scenario: Use in coatings. Use in paints. Use in printing inks. Use in adhesives.
SU3; ERC4; PROC7, PROC10, PROC13

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC4.1a.v1

Operating conditions

Yearly amount used in EU: 43,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 0.8%
Emission factor in water: 2%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Suitable measures to reduce emissions to air can be: Exhaust gas treatment with thermal oxidation.
Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.925355
Risk from environmental exposure is driven by soil.
Maximum safe use amount: 1080.7 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application

Area of use: Industrial

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Ensure that the activity is performed outside the operator’s respiratory zone (head-product distance greater than 1m).
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Avoid splashes.
Make sure the spray booth is used.
Wear suitable clothing.

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 4.2857 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.38961

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 0.0001 mg/m³
Risk Characterization Ratio (RCR): 0.000001

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes

Area of use: Industrial

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.7429 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.249351
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping and pouring

Area of use: Industrial

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation. Effectiveness: 90%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 1.3714 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.124675
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 24.1996 mg/m³
Risk Characterization Ratio (RCR): 0.080665

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

3. USE IN COATINGS. USE IN PAINTS. USE IN PRINTING INKS. USE IN ADHESIVES.

Short title of the exposure scenario: Use in coatings. Use in paints. Use in printing inks. Use in adhesives.
SU22; ERC8a, ERC8d; PROC10, PROC11, PROC13, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC 8a.2a.v1

Operating conditions

Yearly amount used in EU: 2,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 99%
Emission factor in water: 1%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

The wastewater treatment measures considered suitable are, for example, wastewater or sewage treatment plant.
Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.012923
Risk from environmental exposure is driven by freshwater sediment.
Maximum safe use amount: 1934.6 kg/giorno

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: CEPE SPERC 8d.3a.v1

Operating conditions

Yearly amount used in EU: 2,000,000 kgs
Minimum emission days per year: 225
Emission factor to air: 98%
Emission factor in water: 2%
Emission factor in soil: 0%
Receiving surface water (flow rate): 18,000 m³/day
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Type of treatment plant: Municipal sewage treatment plant.
Assumed sewage treatment plant flow: 2,000 m³/day

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR): 0.092422
Risk from environmental exposure is driven by soil.
Maximum safe use amount: 1082 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour). Effectiveness: 70%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.7429 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.249351
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 145.1979 mg/m³
Risk Characterization Ratio (RCR): 0.483993

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤45%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Ensure that the activity is performed outside the operator’s respiratory zone (head-product distance greater than 1m).
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Avoid splashes.
Make sure the spray booth is used.
Wear suitable clothing.

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 10.7143 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.974026
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 0.0001 mg/m³
Risk Characterization Ratio (RCR): 0.000001

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤45%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Daily general cleaning of equipment and work area.
Regular control and maintenance of equipment and machinery.
Make sure doors and windows are open (general ventilation).
Avoid splashes.
Use an adequately effective local ventilation system.
Wear suitable clothing.

Exposure estimation and reference to its source

Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. The concentration of the substance has been considered using a linear approach. Worker - dermal, long-term - systemic.
Exposure estimation: 4.8214 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.438312
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. Operator - inhalation, long-term - local.
Exposure estimation: 153 mg/m³
Risk Characterization Ratio (RCR): 0.51

Guidance for downstream users

For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application

Area of use: Professional

Operating conditions

Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures

Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Minimize manual tasks.
Avoid frequent and direct contact with the substance.
Check that risk reduction measures are implemented and that the conditions of use are respected.
Daily general cleaning of equipment and work area.
Regular inspection and maintenance of equipment and machinery.
Avoid splashes.
Make sure doors and windows are open (general ventilation).
Wear a half face mask with a P2L filter or better.
Wear suitable clothing.

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. The concentration of the substance has been considered using a linear approach. Worker - dermal, long-term - systemic.
Exposure estimation: 4.8214 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.438312
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker, modified version. Operator - inhalation, long-term - local.
Exposure estimation: 116 mg/m³
Risk Characterization Ratio (RCR): 0.386667

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra Please note that a revised version was used (see exposure estimates).

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping and pouring

Area of use: Professional

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour). Effectiveness: 70%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 1.3714 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.124675
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 145.1979 mg/m³
Risk Characterization Ratio (RCR): 0.483993

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact with the only use of personal protective equipment

Area of use: Professional

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 240 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Forced local ventilation: Effectiveness: 80%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
Ensure a good standard of general or controlled ventilation (no less than 3-5 air changes per hour). Effectiveness: 30%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 8.4857 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.771429
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 67.759 mg/m³
Risk Characterization Ratio (RCR): 0.225863

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact with the only use of personal protective equipment
Area of use: Professional

Operating conditions
Substance concentration: n-butyl acetate content: ≥0 - ≤100%
Physical state: liquid
Vapor pressure of the substance during use: 1120Pa
Process temperature: 20°C
Duration and frequency of application: 60 mins. 5 days a week
Indoor/Outdoor: Internal use

Risk management measures
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour). Effectiveness: 70%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Worker - dermal, long-term - systemic.
Exposure estimation: 2.8286 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.257143
Evaluation method: EASY TRA v4.1, ECETOC TRA v3.0, Worker. Operator - inhalation, long-term - local.
Exposure estimation: 145.1979 mg/m³
Risk Characterization Ratio (RCR): 0.483993

Guidance for downstream users
For a comparison term, visit http://www.ecetoc.org/tra

Xylene

Identification of the exposure scenario
Product name: Xylene
Reach registration number: 01-2119488216-32-XXXX
CAS number: 1330-20-7
EC number: 215-535-7
Review date: 14/02/2022 rev. 3.0

USE IN COATINGS - INDUSTRIAL USE

1. Title of the exposure scenario

Process purpose: Includes use in coatings (varnishes, inks, adhesives, etc.), including exposure during application (including material receipt, storage, bulk and semi-bulk preparation and transfer, application by spray, roller, manual spraying, dip, flow, fluid layers in production lines and in film formation) and system cleaning, maintenance and related laboratory activities.
Main sector: SU3 Industrial uses

Environment

Environmental Release Categories [ERC]: ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article).
Specific Environmental Release Category [SPERC]: ESVOC SPERC 4.3a.v1

Worker

Process categories:
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.
PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.
PROC4 Production of chemicals with the possibility of exposure.
PROC5 Mixing or blending in batch processes
PROC7 Industrial spraying.
PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.
PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.
PROC10 Application with rollers or brushes.
PROC13 Treatment of articles by dipping and pouring.
PROC15 Use as laboratory reagent.
PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

2. Other conditions of use affecting exposure (Industrial - Environment 1)

Products features

Form: Liquid, vapor pressure 0.5 - 10 kPa at STP
Easily biodegradable.

Amounts used:

Annual amount per site: 2500 tonnes

Frequency and duration of use

Issue days: 300 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air
Air release rate produced by the process (initial release prior to risk management measures): 0.98
Emission factor - water
Waste water release rate produced by the process (initial release prior to risk management measures): 0.007
Emission factor - soil
Soil release rate produced by the process (initial release prior to risk management measures): 0

Environmental factors that are not influenced by risk management

Dilution

Local fresh water dilution factor: 10
Local seawater dilution factor: 100

Risk management measures

Sewage Treatment Plant Data (STP)

Estimated substance removal from waste water via domestic sewage treatment: 95.8%
Assumed domestic sewage treatment plant flow: 2000 m³/day

Local technical conditions and measures to reduce and limit discharges and air emissions

Air:

Treat air emission to provide a typical removal efficiency of > 90%.

Water:

Avoid releasing the undiluted substance into local waste water or recover it on site. The typical on-site purification technique has a removal efficiency of 95.8%.

Ground:

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures for external treatment of waste

Sludge treatment:

Do not spread industrial sludge on natural soils. Sewerage sludge should be burned, stored or regenerated.
Waste treatment:
No waste of the substance is formed during production.

2. Other conditions of use affecting exposure (Workers - Health 1)

Products features

Form:

Liquid, vapor pressure 0.5 - 10 kPa at STP
Concentration information: Includes concentrations up to 100%, unless otherwise indicated.

Quantities used

Not applicable.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure

Temperature: (unless stated differently) assumes use at not more than 20°C above ambient temperature.
Ventilation Rate: Ensure a sufficient amount of controlled ventilation (10 to 15 air changes per hour). Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and process-level (source) measures to prevent releases

Technical protective measures:

Handle substance within a closed system. Provide supplementary ventilation to points where emissions occur. Ensure material transfers are managed using closed or air exhaust systems. Drain or remove substance from equipment before opening or servicing PROC7 Industrial spraying: spraying (automatic/robotic) should be carried out in a ventilated booth with laminar air flow.

Risk management measures:

PROC7 Industrial spraying.
Manual spraying.
Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure:

Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.
Maximum allowable site tonnage (Msafe), based on release following total waste water treatment removal: 9874 kg/day

3. Exposure Verification (Health 1)

Exposure

Predicted workplace exposures are not expected to exceed the DNEL when risk identification measures are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Required removal efficiency for waste water can be achieved using on-site/off-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

USE IN COATINGS - PROFESSIONAL USE

1. Title of the exposure scenario

Process purpose: Includes use in coatings (varnishes, inks, adhesives, etc.), including exposure during application (including material receipt, storage, bulk and semi-bulk preparation and transfer, application by spray, roller, brush and manual spraying or similar processes and film formation) and system cleaning, maintenance and related laboratory activities.
Main sector: SU22 Professional uses

Environment

Environmental Release Categories [ERC]:
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor).
ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor).
ERC8c Widespread use leading to inclusion into/onto article (indoor).
ERC8f Widespread use leading to inclusion into/onto article (outdoor).
Specific Environmental Release Category [SPERC]: ESVOC SPERC 8.3b.v1

Worker

Process categories:
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.
PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.
PROC4 Production of chemicals with the possibility of exposure.
PROC5 Mixing or blending in batch processes
PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.
PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.
PROC10 Application with rollers or brushes.
PROC11 Non-industrial spray application.
PROC13 Treatment of articles by dipping and pouring.
PROC15 Use as laboratory reagent.
PROC19 Manual activities with direct contact.
PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

2. Other conditions of use affecting exposure (Industrial - Environment 1)

Products features

Form: Liquid, vapor pressure 0.5 - 10 kPa at STP Easily biodegradable.

Quantities used

Annual amount per site: 10 tonnes

Frequency and duration of use

Issue days: 365 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air
Air release rate produced by the process (initial release prior to risk management measures): 0.98
Emission factor - water
Waste water release rate produced by the process (initial release prior to risk management measures): 0.01
Emission factor - soil
Soil release rate produced by the process (initial release prior to risk management measures): 0.01

Environmental factors that are not influenced by risk management

Dilution
Local fresh water dilution factor: 10
Local seawater dilution factor: 100

Risk management measures
Sewage Treatment Plant Data (STP)
Estimated substance removal from waste water via domestic sewage treatment 95.8%
Assumed domestic sewage treatment plant flow: 2000 m³/day

Local technical conditions and measures to reduce and limit discharges and air emissions
Air: Treat air emission to provide a typical removal efficiency of 0%.
Water: The typical on-site purification technique has a removal efficiency of 95.8%.

Conditions and measures for external treatment of waste
Waste treatment: External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Other conditions of use affecting exposure (Workers - Health 1)

Products features
Form:
Liquid, vapor pressure 0.5 - 10 kPa at STP
Concentration information:
Includes concentrations up to 100%, unless otherwise indicated.

Quantities used
Not applicable.

Frequency and duration of use
Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure
Temperature:
(unless stated differently) assumes use at not more than 20°C above ambient temperature.
Ventilation Rate:
Provide a good standard of controlled ventilation (10 to 15 air changes per hour) or ensure operation is undertaken outdoors. Assumes a good basic standard of occupational hygiene is implemented.

Technical conditions and process-level (source) measures to prevent releases
Technical protective measures:
Handle substance within a closed system. Provide supplementary ventilation to points where emissions occur. Ensure material transfers are managed using closed or air exhaust systems. Clean/flush equipment prior to opening or maintenance. Transport on closed roads. PROC11 Non-industrial spray application. Indoor use. Perform in a laminar flow ventilated booth. PROC15 Use as laboratory reagents handle under fume hood or extract air.

Organizational measures to prevent/limit releases, dispersion and exposure
Organizational measures
Avoid activities with an exposure of more than 4 hours.
Hand Application - Finger Paints, Chalks, Stickers:
Limit the amount of substance in the mixture to 5%.

Risk management measures
Wear protective gloves according to EN 374, resistant to solvents.
PROC10 Application with rollers or brushes.
PROC11 Non-industrial spray application. Outdoor use.
PROC13 Treatment of articles by dipping and pouring. Outdoor use.
Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure
Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.
Maximum allowable site tonnage (Msafe), based on release following total waste water treatment removal: 5969 kg/day

3. Exposure Verification (Health 1)

Exposure

Predicted workplace exposures are not expected to exceed the DNEL when risk identification measures are implemented.

4. Guidance to check compliance with the exposure scenario (Environment 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Required removal efficiency for waste water can be achieved using on-site/off-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).

4. Guidance to check compliance with the exposure scenario (Health 1)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Benzyl alcohol

Substance identification
Chemical Name: Benzyl alcohol
CAS number: 100-51-6
Date: 07/12/2012

INDUSTRIAL USE

Exposure scenario for industrial use in adhesives, sealants, coatings and paints, fillers, finger paints, metallic and non-metallic surface treatment products, inks and toners (PC1, PC9a, PC9b, PC9c, PC14, PC15 , PC18)

1. TITLE

Systematic title based on the use descriptor: SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Processes, activities covered:

Mixing or dilution in batch processes
Processing by compression/pelletisation, calendering or use during foam production
Transfer operations from/to large or small containers
Treatment of objects by brush/roller application, spraying or immersion/pouring
Lubrication at high energy conditions
Use as a laboratory agent
Handling of substances bound in materials/articles

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Process categories for human health and environmental release categories for exposure assessment:
PC1: PROC5, 7, 8a, 8b, 9, 10, 12, 13, 14 spERC ESVOC 5 (related to ERC4)
PC9a/b/c: PROC5, 7, 8a, 8b, 9, 10, 13 spERC ESVOC 5 (related to ERC4)
PC14: PROC5, 8a, 8b, 9, 15, 23, 24, 25 spERC ESVOC 5 (related to ERC4)
PC15: PROC5, 8a, 8b, 9, 15 spERC ESVOC 5 (related to ERC4)
PC18: PROC7, 8a, 8b, 9, 10, 13 spERC ESVOC 5 (related to ERC4)

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC14, PROC15

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
Local vapor ventilation (efficiency > 90 %) or other adequate ventilation required

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
PROC7:
Respiratory protection recommended (95% efficiency) as described in section 8.
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC23, PROC24, PROC25

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Indoor use.
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
Local vapor ventilation (efficiency > 90 %) or other adequate ventilation required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.3 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR SPERC ESVOC 5 - RELATED TO ERC4

Product features
Not relevant

Quantity used
Number of sites: > 1
Yearly amount used in the region: PC 1, 9a, 9b, 9c, 14, 15, 18: 412 to: 570 to (10 % rule applies)

Frequency and duration of use
spERC ESVOC 5 (related to ERC4): 300 days/year

Environmental factors not influenced by risk management
Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor 100

Other operational conditions affecting environmental exposure
Indoor and outdoor use

Technical conditions and measures at process level (source) to prevent release
spERC ESVOC 5 (related to ERC4):
Fraction of tonnage released to air: 9,8 %
Fraction of tonnage released to wastewater: 2 %
Fraction of tonnage released into industrial ground: 0 %

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release
Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques. Floors should be waterproof and resistant to liquids.

Organizational measures to prevent/limit release from site
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant
Dimensions of wastewater treatment plant: 2000 m^3/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal
No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste
No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers

Exposure assessment (human):
ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been corrected for concentration.

Exposure estimation:
Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment

Exposure assessment (environment):
EUSES 2.1: ERC4 modified with ESVOC 5 (ESVOC SPERC 4.3a.v1)

Exposure estimation:
The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:
Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:
Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA
Environment: Not applicable
Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

PROFESSIONAL USE

Exposure scenario for professional uses of benzyl alcohol consisting of mixing/ loading and charging/discharging, roller, brush, spray or dip application (PC0, PC1, PC09a, 9b, 9c, PC14, PC15, PC18, PC21, PC26, PC31, PC32).

1. TITLE

Systematic title based on the use descriptor: SU22 - Professional uses: Generalized use

Processes, activities covered:

Mixing or dilution in batch processes BY HAND
Transfer operations from/to large or small containers
Treatment of objects by brush/roller application, spraying or immersion/pouring
Hand mixing with intimate contact and only PSD available
Handling of substances bound in materials/articles

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Process categories for human health and environmental release categories for exposure assessment:
PC0: PROC5, 8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC1: PROC5, 8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC9a, 9b, 9c: PROC5, 8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC14: PROC8a, 8b, 9, 10, 11, 13, 19, 23, 24, 25 - ERC8a, 8d
PC15: PROC8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8d
PC18: PROC5, 8a, 8b, 10, 11, 13, 19 - ERC8a, 8d
PC21: PROC8a, 8b, 15 - ERC8a, 8d
PC26: PROC5, 6, 8a, 8b, 11, 13, 14, 19, 21 - ERC8a, 8d
PC30: PROC8a, 8b - ERC8a, 8d
PC31: PROC8b, 10, 11 - ERC8a, 8d
PC32: PROC8a, 8b, 9, 10, 11 - ERC8a, 8d

Number of sites: > 1

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC14, PROC15

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m^3/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker

No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
PROC8b, PROC9, PROC14, PROC15: concentration ≤ 40 %: no RMM required.
PROC5, PROC8a, PROC13: > 25 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.
PROC6: > 5 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.
PROC10: < 5 % (indoor and outdoor environment): No RMMs required.
> 5 - ≤ 40 % (indoor and outdoor environment): gloves (90 % efficiency) are required as described in point 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC11

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Indoor and outdoor use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
≤ 5 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) required as described in section 8.
> 5 % ≤ 40 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) and gloves (90 % efficiency) required as described in section 8.
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.3 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC19

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day (concentration ≤ 25 %): 8 hours (indoors and outdoors)
Duration of exposure per day (concentration >25% ≤40%): 4 hours (indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Indoor and outdoor use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
> 1 % (indoor): gloves (90 % efficiency) are required as described in section 8.
> 5% - 40% (outdoors): gloves (90 % efficiency) are required as described in section 8.
Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.4 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR ERC8a, ERC8d

Product features
Not relevant

Quantity used
Yearly amount used in the region: the 10% rule applies
ERC8a PC0, 1, 9a, 9b, 9c, 14, 15, 18, 21, 26, 30, 31, 32, 34, 35: 1,785t
ERC8d PC0, 1, 9a, 9b, 9c, 14, 15, 18, 21, 26, 31, 32, 34, 35: 1,775t
Fraction of main local source: 0.002 (default)
Issue days per site: 365 days/year (default)

Frequency and duration of use
Continuous release: 365 days/year

Environmental factors not influenced by risk management
Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor local: 100

Other operational conditions affecting environmental exposure
Indoor / outdoor environment

Technical conditions and measures at process level (source) to prevent release
No special measures are required.

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release
Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques.

Organizational measures to prevent release from site
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant
Dimensions of wastewater treatment plant: 2000 m³/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal
No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste
No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers

PROC5, PROC6, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC19

Exposure assessment (human):

PROC5, PROC6, PROC8b, PROC9, PROC11, PROC13, PROC14, PROC15

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration.

PROC8a, PROC10

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration. Local and systemic exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration.

PROC19

ECETOC TRA model (April 2010 version). The dermal exposure estimates of ECETOC TRA have been linearly corrected for the concentration and according to the EMFs of CEFIC for the duration of exposure. Local exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration and in accordance with the CEFIC EMFs for the duration of exposure. Systemic exposure via inhalation has been linearly scaled for the duration of exposure.

Exposure estimation:

Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment

ERC8a, ERC8d

Exposure assessment (environment):

EUSES 2.1.

Exposure estimation:

The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:

Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:

Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA

Environment: Not applicable

Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

PROFESSIONAL USE

Exposure scenario for professional use in photochemicals (PC30)

1. TITLE

Systematic title based on the use descriptor: SU22 - Professional uses: Generalized use

Processes, activities covered:

Transfer operations from/to large or small containers

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Human Health Exposure/Environmental Exposure:
PC30: PROC8a, 8b - ERC8a, 8d

Number of sites: > 1

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC8a E PROC8b

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m^3/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker

No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure

Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection:
PROC8b: concentration ≤ 40 %: no RMM required.
PROC8a: > 25 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR ERC8a, ERC8b

Product features
Not relevant

Quantity used
Yearly amount used in the region: the 10% rule applies
ERC8a PC30: 1.785 t
ERC8d PC30: 190 t
Fraction of main local source: 0.002 (default)
Issue days per site: 365 days/year (default)

Frequency and duration of use
Continuous release: 365 days/year

Environmental factors not influenced by risk management
Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor local: 100

Other operational conditions affecting environmental exposure
No special measures are required.

Technical conditions and measures at process level (source) to prevent release
No special measures are required.

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release
Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques.

Organizational measures to prevent release from site
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant
Dimensions of wastewater treatment plant: 2000 m³/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal
No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste
No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers
PROC8a, PROC8b

Exposure assessment (human):
PROC8a
ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration. Local and systemic exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration.

PROC8b
ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration.

Exposure estimation:
Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment
ERC8a, ERC8b

Exposure assessment (environment):
EUSES 2.1.

Exposure estimation:
The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:
Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:
Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA
Environment: Not applicable
Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

PROFESSIONAL USE

Exposure scenario for professional use in washing and cleaning products, cosmetics and personal care products (PC35, PC39)

1. TITLE

Systematic title based on the use descriptor: SU22 - Professional uses: Generalized use

Processes, activities covered:

Transfer operations from/to large or small containers
Treatment of objects by roller/brush, spray or dip/pour application
Mixing or dilution in batch processes or by hand

Evaluation method:

ECETOC TRA (April 2010), EUSES (v.2.1)

2. OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Human Health Exposure/Environmental Exposure:
PC35: PROC8a, 8b, 9, 10, 11, 13, 19 - ERC8a, 8b, 8d, 8e
PC39: PROC13 - ERC8a, 8b, 8d, 8e

Number of sites: > 1

2.1 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC8a, PROC8b, PROC9, PROC10, PROC13

Product features

Concentration ≤ 40%
Physical state: liquid

Quantity used

Not applicable

Frequency and duration of use/exposure

Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management

Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure

Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker

No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure

Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection:
PROC8b, PROC9: concentration ≤ 40 %: no RMM required.
PROC8a, PROC13: > 25 % - ≤ 40 %: gloves (90 % efficiency) are required as described in section 8.
PROC10: < 5 % (indoor and outdoor environment): No RMMs required
> 5 - ≤ 40 % (indoor and outdoor environment): gloves (90 % efficiency) are required as described in section 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.2 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC11

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day: 8h (full shift, indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection:
≤ 5 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) required as described in section 8.
> 5 % - ≤ 40 % (indoor and outdoor environment): Respiratory protection (95 % efficiency) and gloves (90 % efficiency) required as described in section 8.

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.3 EXPOSURE SCENARIO CONTROLLING WORKER EXPOSURE FOR PROC19

Product features
Concentration ≤ 40%
Physical state: liquid

Quantity used
Not applicable

Frequency and duration of use/exposure
Duration of exposure per day (concentration ≤ 25 %): 8 h (indoor and outdoor)
Duration of exposure per day (concentration >25% - ≤40%): 4 hours (indoors and outdoors)
Duration of exposure per year: 230 days

Human factors not influenced by risk management
Breathing volume in the conditions of use: 10 m³/8h-day (light activity)
Body weight: 70kg (worker)

Other operational conditions affecting worker exposure
Internal use
Use at room temperature

Technical conditions and measures to control dispersion from source to the worker
No special measures are required.

Organizational measures to prevent/limit releases, dispersion and exposure
Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection:
> 1 % (indoor): gloves (90 % efficiency) are required as described in section 8.
> 5% - 40% (outdoors): gloves (90 % efficiency) are required as described in section 8..

Wear safety goggles as described in section 8.
Wear protective clothing as described in section 8.

2.4 EXPOSURE SCENARIO CONTROLLING ENVIRONMENTAL EXPOSURE FOR ERC8a, ERC8b, ERC8d, ERC8e

Product features

Not relevant

Quantity used

Yearly amount used in the region: the 10% rule applies
ERC8a PC35/PC39: 1,785 t
ERC8b PC35/PC39: 190 t
ERC8d PC35/PC39: 1,775 t
ERC8e PC35/PC39: 190 t
Fraction of main local source: 0.002 (default)
Issue days per site: 365 days/year (default)

Frequency and duration of use

Continuous release: 365 days/year

Environmental factors not influenced by risk management

Local fresh water dilution factor: 10
Receiving surface water flow: 18,000 m³/d
Local seawater dilution factor local: 100

Other operational conditions affecting environmental exposure

No special measures are required.

Technical conditions and measures at process level (source) to prevent release

No special measures are required.

Local technical conditions and measures to reduce and limit discharges, atmospheric emissions and soil release

Waste water must be sent to a dedicated treatment plant or treated with other suitable techniques.

Organizational measures to prevent release from site

Only properly trained and authorized personnel can handle the substance. Substance handling procedures must be well documented and controlled.

Conditions and measures for the domestic sewage treatment plant

Dimensions of wastewater treatment plant: 2000 m³/d (removal rate: 87.4 %)

Conditions and measures for external treatment of waste for disposal

No specific measures. For general conditions and measures, see section 13.

Conditions and measures for external recovery of waste

No specific measures. For general conditions and measures, see section 13.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Workers

Exposure assessment (human):

PROC8b, PROC9, PROC11, PROC13

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been corrected for concentration.

PROC8a, PROC10

ECETOC TRA model (April 2010 version). Dermal exposure estimates of ECETOC TRA have been linearly corrected for concentration. Local and systemic exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration.

PROC19

ECETOC TRA model (April 2010 version). The dermal exposure estimates of ECETOC TRA have been linearly corrected for the concentration and according to the EMFs of CEFIC for the duration of exposure. Local exposure via inhalation of ECETOC TRA has been linearly scaled based on the concentration and in accordance with the CEFIC EMFs for the duration of exposure. Systemic exposure via inhalation has been linearly scaled for the duration of exposure.

Exposure estimation:

Individual and combined (skin and inhalation) exposure values are below the DNELs (RCR ratios < 1).

Environment

ERC8a, ERC8b, ERC8d, ERC8e

Exposure assessment (environment):

EUSES 2.1.

Exposure estimation:

The predicted exposure concentrations for air, water and soil are lower than the derived PNECs, giving an RCR < 1.

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Environment:

Under the conditions listed above the process is considered safe. Direct release to water and soil should be avoided, air emissions should be minimised. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Health:

Under the conditions listed above the process is considered safe. Other conditions should be considered only when adequate measurements or calculations demonstrate that the RCR remains < 1.

Further good practice advice beyond the REACH CSA

Environment: Not applicable

Health: On possible contact with the product (sampling, use, spills, product leaks, cleaning): wear protective clothing. Wear protective gloves and safety goggles. See section 8 for information on appropriate personal protective equipment.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

Substance identification
Chemical Name: 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
CAS number: 25513-64-8

1. STRUCTURED SHORT TITLE: ES8: WIDE DISPERSIVE INDOOR USE RESULTING IN INCLUSION IN OR APPLIED TO A MATRIX

Main user groups: **SU 22 -** Professional uses: public sector (administration, education, entertainment, services, crafts)
Environmental release category: **ERC8c -** Wide dispersive internal use resulting in being included in or applied to a matrix
Process category:
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (contact at different stages and/or important contact)
PROC8a - Transfer of a substance or a preparation (filling/ emptying) from/ to vessels/ large containers, in non-dedicated facilities
PROC8b - Transfer of a substance or a preparation (filling/ emptying) from/ to vessels/ large containers, in dedicated facilities.
PROC9 - Transfer of a substance or preparation into small containers (dedicated filling line, including weighing)
PROC10 - Application with rollers or brushes
PROC11 - Non-industrial spray application
PROC13 - Treatment of articles by dipping and pouring
PROC14 - Production of preparations or articles by tabletting, compression, extrusion, pelettisation
PROC19 - Hand-mixing with direct contact and only PPE available

2.1. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF ENVIRONMENTAL EXPOSURE FOR ERC8c: WIDE DISPERSIVE INDOOR USE RESULTING IN INCLUSION INTO OR ONTO A MATRIX

Quantity used
Daily quantity per site: 16.5 g/day
Fraction of amount used by region: 10%

Frequency and duration of use
Continuous exposure: 365 days/year

Environmental factors not influenced by risk management
Mobile phase efflux rate: 18000 m3/d
Dilution factor (river): 10
Dilution factor (coastal areas): 100

Other given operational conditions affecting environmental exposure
Number of days of issue per year: 365
Emission or Release Factor: Air: 0%
Emission or Release Factor: Water: 1.5 %
Emission or Release Factor: Soil: 0%

Preconditions and technical measures/Organisational measures

Preconditions and measures related to municipal sewage treatment plant
Type of wastewater treatment plant: Municipal STP
Flow rate of sewage plant emission: 2000 m3/d
Sewage sludge treatment: Controlled application of waste water sludge on agricultural land

2.2. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC5: MIXING OR BLENDING IN BATCH PROCESSES FOR FORMULATION OF PREPARATIONS AND ARTICLES (CONTACT AT DIFFERENT STAGES AND/OR IMPORTANT CONTACT)

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour) with local aspiration.
Effectiveness: 80 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.3. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC8a: TRANSFER OF A SUBSTANCE OR A PREPARATION (FILLING/ EMPTYING) FROM/ TO VESSELS/ LARGE CONTAINERS, IN NON-DEDICATED FACILITIES

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 960 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour With local suction.
Effectiveness: 80 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.4. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC8b: TRANSFER OF A SUBSTANCE OR A PREPARATION (FILLING/ EMPTYING) FROM/ TO VESSELS/ LARGE CONTAINERS, IN DEDICATED FACILITIES

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 960 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour, use in semi-closed loading procedure with occasional controlled exposure With local suction.
Effectiveness: 90 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.5. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC9: TRANSFER OF SUBSTANCE OR PREPARATION INTO SMALL CONTAINERS (DEDICATED FILLING LINE, INCLUDING WEIGHING)

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour, use in semi-closed loading procedure with occasional controlled exposure With local suction.
Effectiveness: 90 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.6. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC10: APPLICATION WITH ROLLERS OR BRUSHES

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 960 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour With local suction.
Effectiveness: 80 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.7. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC11: NON-INDUSTRIAL SPRAY APPLICATION

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 1500 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour With local suction.
Effectiveness: 80 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.8. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC13: TREATMENT OF ARTICLES BY DIPPING AND POURING

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour With local suction.
Effectiveness: 80 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.9. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC14: PRODUCTION OF PREPARATIONS OR ARTICLES BY TABLETTING, COMPRESSION, EXTRUSION, PELLETISATION

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour With local suction.
Effectiveness: 80 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.10. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC19: HAND-MIXING WITH DIRECT CONTACT AND ONLY PPE AVAILABLE

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 1980 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: internal

Pre-conditions and technical measures
Provide a good standard of general ventilation (not less than 1 air change per hour With local suction.
Effectiveness: 80 %

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator in accordance with EN136 with filter type A/P2 or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

3. EXPOSURE ESTIMATION AND REFERENCE TO RELATED SOURCE

Environment

Contributing scenario	Procedure for exposure assessment	Specific conditions	Sub-fund	Exposure level	RCR	Remarks
ERC8c	CHESAR model used	/	Fresh water	0.000033 mg/l	< 0.01	/
ERC8c	CHESAR model used	/	Fresh water sediment	0.000205 mg/kg dry weight	< 0.01	/
ERC8c	CHESAR model used	/	Sea water	0.0000034 mg/l	< 0.01	/
ERC8c	CHESAR model used	/	Marine sediment	0.0000211 mg/kg dry weight	< 0.01	/
ERC8c	CHESAR model used	/	STP	0.000122 mg/l	< 0.01	/
ERC8c	CHESAR model used	/	Soil	0.0000032 mg/kg dry weight	< 0.01	/
ERC8c	CHESAR model used	/	Man	0.0000011 mg/kg dry weight	< 0.01	/

Workers

Contributing scenario	Procedure for exposure assessment	Value type	Exposure level	Remarks
PROC5	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.396 mg/m³	/
PROC5	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	2.638 mg/m³	/
PROC5	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC5	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC5	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.2 mg/kg pc/day	/
PROC5	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC5	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC8a	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.989 mg/m³	/
PROC8a	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	6.595 mg/m³	/
PROC8a	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC8a	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC8a	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.1 mg/kg bw/day	/
PROC8a	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC8a	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC8b	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.198 mg/m³	/
PROC8b	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	1.319 mg/m³	/
PROC8b	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC8b	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC8b	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.1 mg/kg bw/day	/

Contributing scenario	Procedure for exposure assessment	Value type	Exposure level	Remarks
PROC8b	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC8b	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC9	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.396 mg/m³	/
PROC9	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	2.638 mg/m³	/
PROC9	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	0.686 mg/kg bw/day	/
PROC9	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC9	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.1 mg/kg bw/day	/
PROC9	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC9	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC10	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.989 mg/m³	/
PROC10	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	6.595 mg/m³	/
PROC10	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	2.743 mg/kg bw/day	/
PROC10	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC10	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.2 mg/kg pc/day	/
PROC10	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC10	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC11	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	3.957 mg/m³	/
PROC11	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	26.38 mg/m³	/
PROC11	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	10.71 mg/kg bw/day	/
PROC11	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC11	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.5 mg/kg bw/day	/
PROC11	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC11	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC13	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.396 mg/m³	/
PROC13	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	2.638 mg/m³	/
PROC13	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC13	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC13	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.2 mg/kg pc/day	/

Contributing scenario	Procedure for exposure assessment	Value type	Exposure level	Remarks
PROC13	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC13	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC14	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.396 mg/m³	/
PROC14	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	2.638 mg/m³	/
PROC14	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	0.343 mg/kg bw/day	/
PROC14	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC14	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.05 mg/kg bw/day	/
PROC14	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC14	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC19	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	0.989 mg/m³	/
PROC19	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	6.595 mg/m³	/
PROC19	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	14.14 mg/kg bw/day	/
PROC19	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC19	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.05 mg/kg bw/day	/
PROC19	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC19	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.

Guidance to downstream users to evaluate whether they work inside the boundaries set by the exposure scenario

ECETOC TRA, o, EUSES v2.1: Methods are based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e. RCR > 1), additional risk management measures or a site-specific chemical safety assessment are required.

1. STRUCTURED SHORT TITLE: ES9: WIDE DISPERSIVE OUTDOOR USE RESULTING IN INCLUSION INTO OR ONTO A MATRIX

Main user groups: **SU 22 -** Professional uses: public sector (administration, education, entertainment, services, crafts)
Environmental release category: **ERC8f** Wide dispersive external use resulting in being included in or applied to a matrix
Process category:
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (contact at different stages and/or important contact)
PROC8a - Transfer of a substance or a preparation (filling/ emptying) from/ to vessels/ large containers, in non-dedicated facilities
PROC8b - Transfer of a substance or a preparation (filling/ emptying) from/ to vessels/ large containers, in dedicated facilities.
PROC9 - Transfer of a substance or preparation into small containers (dedicated filling line, including weighing)
PROC10 - Application with rollers or brushes
PROC11 - Non-industrial spray application
PROC13 - Treatment of articles by dipping and pouring
PROC14 - Production of preparations or articles by tabletting, compression, extrusion, pelettisation
PROC19 - Hand-mixing with direct contact and only PPE available

2.1. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF ENVIRONMENTAL EXPOSURE FOR FEICA SPERC 8f.1.v1: WIDE DISPERSIVE USE OF NON-SOLVENT SUBSTANCES IN CONSTRUCTION ADHESIVES FOR OUTDOOR APPLICATIONS (FEICA 14)

Quantity used
Daily quantity per site: 4 g/day
Fraction of amount used by region: 10%

Frequency and duration of use
Continuous exposure: 365 days/year

Environmental factors not influenced by risk management
Mobile phase efflux rate: 18000 m3/d
Dilution factor (river): 10
Dilution factor (coastal areas): 100

Other given operational conditions affecting environmental exposure
Number of days of issue per year: 365
Emission or Release Factor: Air: 0%
Emission or Release Factor: Water: 1.5 %
Emission or Release Factor: Soil: 0%

Preconditions and technical measures/Organisational measures

Preconditions and measures related to municipal sewage treatment plant
Type of wastewater treatment plant: Municipal STP
Flow rate of sewage plant emission: 2000 m3/d
Sewage sludge treatment: Controlled application of waste water sludge on agricultural land

2.2. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC5: MIXING OR BLENDING IN BATCH PROCESSES FOR FORMULATION OF PREPARATIONS AND ARTICLES (CONTACT AT DIFFERENT STAGES AND/OR IMPORTANT CONTACT)

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.3. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC8a: TRANSFER OF A SUBSTANCE OR A PREPARATION (FILLING/ EMPTYING) FROM/ TO VESSELS/ LARGE CONTAINERS, IN NON-DEDICATED FACILITIES

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 960 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.4. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC8b: TRANSFER OF A SUBSTANCE OR A PREPARATION (FILLING/ EMPTYING) FROM/ TO VESSELS/ LARGE CONTAINERS, IN DEDICATED FACILITIES

Product features
Remarks: Covers percentage substance in the product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 960 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Pre-conditions and technical measures
Use in semi-closed loading procedure with occasional controlled exposure.

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.5. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC9: TRANSFER OF SUBSTANCE OR PREPARATION INTO SMALL CONTAINERS (DEDICATED FILLING LINE, INCLUDING WEIGHING)

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Pre-conditions and technical measures
Use in semi-closed loading procedure with occasional controlled exposure.

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.6. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC10: APPLICATION WITH ROLLERS OR BRUSHES

Product features
Remarks: Covers percentage substance in the product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 960 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.7. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC11: NON-INDUSTRIAL SPRAY APPLICATION

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 1500 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.8. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC13: TREATMENT OF ARTICLES BY DIPPING AND POURING

Product features
Remarks: Covers percentage substance in the product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.9. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC14: PRODUCTION OF PREPARATIONS OR ARTICLES BY TABLETTING, COMPRESSION, EXTRUSION, PELLETISATION

Product features
Remarks: Covers percentage substance in product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 480 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

2.10. CONTRIBUTIVE SCENARIO FOR THE CONTROL OF OCCUPATIONAL EXPOSURE OF WORKERS FOR PROC19: HAND-MIXING WITH DIRECT CONTACT AND ONLY PPE AVAILABLE

Product features
Remarks: Covers percentage substance in the product up to 100 % (unless otherwise stated).
Physical Form (at time of use): liquid
Conditions: e ≤40°C

Frequency and duration of use
Duration of the activity: < 4 h

Human factors not influenced by risk management
Dermal exposure: ≤ 1980 cm²

Other operational conditions affecting worker exposure
Outdoors/in closed environments: outdoor

Organizational measures to prevent/limit releases, dispersion and exposure
Assumes a good basic standard of occupational hygiene is implemented.

Pre-conditions and measures related to body protection, hygiene and assessment of health aspects
Wear a full face respirator conforming to EN136 with type A filter or better.
Effectiveness: 95 %
During the basic training wear chemical resistant gloves (tested according to EN 374).
Effectiveness: 90 %

3. EXPOSURE ESTIMATION AND REFERENCE TO RELATED SOURCE

Environment

Contributing scenario	Procedure for exposure assessment	Specific conditions	Sub-fund	Exposure level	RCR	Remarks
ERC8f	CHESAR model used	/	Fresh water	0.000024 mg/l	< 0.01	/
ERC8f	CHESAR model used	/	Fresh water sediment	0.00014 mg/kg dry weight	< 0.01	/
ERC8f	CHESAR model used	/	Sea water	0.0000025 mg/l	< 0.01	/
ERC8f	CHESAR model used	/	Marine sediment	0.000015 mg/kg dry weight	< 0.01	/
ERC8f	CHESAR model used	/	STP	0.00003 mg/l	< 0.01	/
ERC8f	CHESAR model used	/	Soil	0.0000018 mg/kg dry weight	< 0.01	/
ERC8f	CHESAR model used	/	Man	0.0000007 mg/kg dry weight	< 0.01	/

Workers

Contributing scenario	Procedure for exposure assessment	Value type	Exposure level	Remarks
PROC5	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	1.385 mg/m³	/
PROC5	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	9.234 mg/m³	/
PROC5	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC5	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC5	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.2 mg/kg pc/day	/
PROC5	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC5	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC8a	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	3.463 mg/m³	/
PROC8a	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	23.08 mg/m³	/
PROC8a	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC8a	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC8a	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.1 mg/kg bw/day	/
PROC8a	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC8a	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC8b	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	1.385 mg/m³	/
PROC8b	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	9.234 mg/m³	/
PROC8b	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC8b	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC8b	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.1 mg/kg bw/day	/
PROC8b	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC8b	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC9	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	1.385 mg/m³	/
PROC9	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	9.234 mg/m³	/
PROC9	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	0.686 mg/kg bw/day	/
PROC9	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC9	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.1 mg/kg bw/day	/
PROC9	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC9	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.

Contributing scenario	Procedure for exposure assessment	Value type	Exposure level	Remarks
PROC10	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	3.463 mg/m³	/
PROC10	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	23.08 mg/m³	/
PROC10	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	2.743 mg/kg bw/day	/
PROC10	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC10	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.2 mg/kg pc/day	/
PROC10	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC10	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC11	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	13.85 mg/m³	/
PROC11	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	92.34 mg/m³	/
PROC11	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	10.71 mg/kg bw/day	/
PROC11	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC11	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.5 mg/kg bw/day	/
PROC11	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC11	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC13	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	1.385 mg/m³	/
PROC13	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	9.234 mg/m³	/
PROC13	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	1.371 mg/kg pc/day	/
PROC13	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC13	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.2 mg/kg pc/day	/
PROC13	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC13	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC14	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	1.385 mg/m³	/
PROC14	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	9.234 mg/m³	/
PROC14	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	0.343 mg/kg bw/day	/
PROC14	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC14	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.05 mg/kg bw/day	/
PROC14	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC14	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.
PROC19	ECETOCTRA v3 (2012)	Worker - inhalation exposure, long-term - local	3.463 mg/m³	/

Contributing scenario	Procedure for exposure assessment	Value type	Exposure level	Remarks
PROC19	ECETOCTRA v3 (2012)	Worker - inhalative, short-term - systemic	23.08 mg/m³	/
PROC19	ECETOCTRA v3 (2012)	Worker - dermal, longterm - systemic	14.14 mg/kg bw/day	/
PROC19	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - systemic	/	See section 8.
PROC19	ECETOCTRA v3 (2012)	Worker - dermal, longterm - local	0.05 mg/kg bw/day	/
PROC19	Qualitative approach adopted to draw conclusions on safe use	worker - dermal, short term - local	/	See section 8.
PROC19	Qualitative approach adopted to draw conclusions on safe use	worker - contact with eyes	/	See section 8.

Guidance to downstream users to evaluate whether they work inside the boundaries set by the exposure scenario

ECETOC TRA, o, EUSES v2.1: Methods are based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e. RCR > 1), additional risk management measures or a site-specific chemical safety assessment are required.

m-phenylenebis(methylamine)

Substance identification
Chemical Name: m-phenylenebis(methylamine)
CAS number: CAS-1477-55-0
Date - Version: 10/03/2020 - 1.0

PROFESSIONAL USES - GENERALIZED USE BY PROFESSIONAL OPERATORS: VARIOUS PRODUCTS (PC9a, PC9b, PC1); CONSTRUCTION (SU19)

1. TITLE SECTION

Exposure scenario name: Professional use of coatings and paints - Use in composite and foundry materials
Life cycle stage: Professional uses
Sectors of use: Construction (SU19) - Professional uses (SU22)
Product categories: Coatings and paints, thinners, pickling solutions (PC9a) - Additives, fillers, plasters, modeling clay (PC9b) - Adhesives, Sealants (PC1)

CONTRIBUTION SCENARIO - ENVIRONMENT

CS1: Wet cure - Wet formulation ERC8c - ERC8f

CONTRIBUTION SCENARIO - WORKER

CS2: Application with rollers or brushes PROC10
CS3: Non-industrial spray application PROC11
CS4: Treatment of articles by dipping and pouring PROC13
CS5: Manual activities with direct contact PROC19
CS6: Low energy handling of substances included in or on materials and/or articles PROC21

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. CS1: CONTRIBUTION SCENARIO - ENVIRONMENT: Wet cure - Wet formulation (ERC8c, ERC8f)

Environmental release categories

Widespread use resulting in inclusion in or on the surface of an article (indoor use) - Wide use leading to inclusion in/on article (outdoor use) (ERC8c, ERC8f)

Product features (article)

Physical form of the product: Liquid

Amount used, frequency and duration of use/(or duration of use)

Amounts used:
PROC10 ≤ 0,4 l/min
PROC11 ≤ 0,3 l/min
PROC13 ≤ 2 l/min
PROC19 ≤ 1 l/min
PROC21 ≤ 0,3 l/min

Measures and technical-organizational conditions

Control measures to prevent releases: No entry of substance into waste water.

Conditions and measures for waste treatment (including the product waste)

Waste treatment: This material and its container must be disposed of as hazardous.
Dispose of waste product or used containers according to local regulations.
Incineration of hazardous waste.

2.2. CS2: CONTRIBUTION SCENARIO - WORKER: Application with rollers or brushes (PROC10)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 0.4 l/min
Duration: ≤ 5 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.3. CS3: CONTRIBUTION SCENARIO - WORKER: Non-industrial spray application (PROC11)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 0.3 l/min
Duration: ≤ 6 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.4. CS4: CONTRIBUTION SCENARIO - WORKER: Treatment of articles by dipping and pouring (PROC13)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 2 l/min
Duration: ≤ 1 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.5. CS5: CONTRIBUTION SCENARIO - WORKER: Manual activities with direct contact (PROC19)

Product features (article)
Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 40%.

Amount used, frequency and duration of use/(or duration of use)
Amounts used: Quantity per use 1 l/min
Duration: ≤ 2 h/day
Frequency: 365 days/year

Technical organizational measures
Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

2.6. CS6: CONTRIBUTION SCENARIO - WORKER: Low energy handling of substances included in or on materials and/or articles (PROC21)

Product features (article)

Physical form of the product: Liquid.
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/(or duration of use)

Amounts used: Quantity per use 0.3 l/min
Duration: ≤ 6 h/day
Frequency: 365 days/year

Technical organizational measures

Ensure that direct skin contact is avoided.
Avoid direct contact with the product, even with contaminated hands.
Ensure operating personnel are trained to minimize exposure.
See main part of the safety data sheet, Sections 7 and/or 8, for measures mitigating the risks deriving from the physical-chemical properties.
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment:
Wear suitable face protection.
Use adequate eye protection.
Wear a suitable apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Use a respiratory protective device according to EN140.
Dermal: minimum efficiency of 80%.
Inhalation: minimum efficiency of 95%.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1: CONTRIBUTION SCENARIO - ENVIRONMENT: Wet cure - Wet formulation (ERC8c, ERC8f)

Protection goal	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
fresh water	N.d.	ECETOC TRA environment v2.0	0.169
fresh water sediment	N.d.	ECETOC TRA environment v2.0	0.411
sea water	N.d.	ECETOC TRA environment v2.0	0.089
Marine sediment	N.d.	ECETOC TRA environment v2.0	0.412
Agricultural land	N.d.	ECETOC TRA environment v2.0	0.004

3.2. CS2: CONTRIBUTION SCENARIO - ENVIRONMENT: Application with rollers or brushes (PROC10)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

1 - m-phenylenebis(methylamine) - 1

3.3. CS3 CONTRIBUTION SCENARIO - ENVIRONMENT: Non-industrial spray application (PROC11)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

3.4. CS4 CONTRIBUTION SCENARIO - ENVIRONMENT: Treatment of articles by dipping and pouring (PROC13)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

3.5. CS5 CONTRIBUTION SCENARIO - ENVIRONMENT: Manual activities with direct contact (PROC19)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

3.6. CS6 CONTRIBUTION SCENARIO - ENVIRONMENT: Low energy handling of substances included in or on materials and/or articles (PROC21)

Route of exposure, Impact on health, Exposure indicator	Degree of exposure	Calculation method	Risk Characterization Ratio (RCR)
skin contact, systemic, long-term	N.d.	RISKOFDERM v2.1	0.83
by inhalation, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.2

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Predicted exposures are not expected to exceed the applicable exposure limits (given in section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

phenol, styrenated

Substance identification
Chemical Name: phenol, styrenated
CAS number: 61788-44-1

COATINGS AND PAINTS - PROFESSIONAL USE

1. TITLE SECTION

Exposure scenario name: Professional use of coatings and paints
Date - Version: 10/03/2020 - 1.0
Life cycle stage: Generalized use by professional operators
Main user group: Professional uses
Sectors of use Professional uses (SU22)

Contributing scenario - Environment

CS1 Wet polymerization - wet formulation: ERC8c

Contributing scenario - Worker

CS2 Blend Operations: PROC5
CS3 Material Transfers: PROC8a
CS4 Material Transfers PROC8b
2. CONTRIBUTIVE SCENARIOS

2.1. Contributing Scenario CS1 - Environment: Wet polymerization - wet formulation (ERC8c)

Environmental release categories: Widespread use resulting in inclusion in or on the surface of an article (indoor use) (ERC8c)

Amount used, frequency and duration of use

Quantities used: Daily quantity per site 8.25E-06 ton/day

Conditions and measures relating to municipal sewage treatment plants

Type of sewage treatment plant (STP): Municipal STP Water - 92.56% minimum efficiency
STP effluent (m^3/day): 2000

Waste treatment conditions and measures (including product waste)

Waste treatment: No specific measures identified.

Other operational conditions affecting environmental exposure

Flow rate of receiving surface water: 18000 m^3/day

2.2. CS2 Contributing Scenario - Worker: Mixing Operations (PROC5)

Environmental release categories: Mixing or blending in batch processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Concentration of the substance in the product: Substance as it is.

Amount used, frequency and duration of use

Duration: Covers exposure up to 8 hours.

Measures and technical-organizational conditions

Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).
Ensure operating personnel are trained to minimize exposure.
Dermal - minimum 80% efficiency.
Inhalation - minimum 80% efficiency.

Conditions and measures for personal protection, hygiene and health verification

Personal protective equipment: Wear suitable respiratory protection. Inhalation - minimum 90% efficiency.

Other operational conditions affecting worker exposure
Indoor use
Temperature: A process temperature of up to 40°C is assumed.
Body parts exposed: Possible skin contact is believed to be limited to the hands.

2.3. CS3 Contributing Scenario - Worker: Material transfers (PROC8a)
Process categories: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a)

Product features (article)
Physical form of the product: Liquid
Concentration of the substance in the product: Substance as it is.

Amount used, frequency and duration of use/exposure
Duration: Covers a daily exposure of up to 1 hour.

Measures and technical-organizational conditions
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).
Ensure operating personnel are trained to minimize exposure.
Dermal - minimum 80% efficiency.
Inhalation - minimum 80% efficiency.

Conditions and measures for personal protection, hygiene and health verification
Personal protective equipment: Wear suitable respiratory protection. Inhalation - minimum 90% efficiency.

Other operational conditions affecting worker exposure
Indoor use
Temperature: A process temperature of up to 40°C is assumed.
Body parts exposed: Possible skin contact is believed to be limited to the hands.

2.4. CS4 Contributing Scenario - Worker: Material transfers (PROC8b)
Process categories: Transfer of a substance or a preparation (filling/emptying) at dedicated facilities (PROC8b)

Product features (article)
Physical form of the product: Liquid
Concentration of the substance in the product: Substance as it is.

Amount used, frequency and duration of use/exposure
Duration: Covers a daily exposure of up to 1 hour.

Measures and technical-organizational conditions
Ensure a sufficient amount of general ventilation (1 to 3 air changes per hour).
Ensure operating personnel are trained to minimize exposure.
Dermal - minimum 80% efficiency.
Inhalation - minimum 80% efficiency.

Conditions and measures for personal protection, hygiene and health verification
Personal protective equipment: Wear suitable respiratory protection. Inhalation - minimum 90% efficiency.

Other operational conditions affecting worker exposure
Indoor use
Temperature: A process temperature of up to 40°C is assumed.
Body parts exposed: Possible skin contact is believed to be limited to the hands.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Contributing Scenario CS1 - Environment: Wet polymerization - Wet Formulation (ERC8c)

Release route	Release rate	Release evaluation method
Water	8.25E-05 kg/day	N.d.
Air	15%	N.d.

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	1.821E-06 mg/l	N.d.	<0.01
fresh water sediment	0.383 mg/kg dry weight	N.d.	<0.01
sewage treatement plant	3.578E-07 mg/l	N.d.	<0.01
Marine sediment	0.075 mg/kg dry weight	N.d.	<0.01
sewage treatement plant	3.071E-06 mg/l	N.d.	<0.01
agricultural land	0.004 mg/kg dry weight	N.d.	<0.01
environmentally exposed people - Inhalation	0.000288 mg/m³	N.d.	<0.01
environmentally exposed people - Oral	2.25E-06 mg/kg bw/day	N.d.	<0.01
all ways	N.d.	N.d.	<0.01

3.2. CS2 Contributing Scenario - Worker: Mixing Operations (PROC5)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	1.65 mg/m³	ECETOC TRA Worker v3	0.15
skin contact, systemic, long-term	2.742 mg/kg bw/day	ECETOC TRA Worker v3	0.439
combined routes, systemic, long-term	N.d.	ECETOC TRA Worker v3	0.588

3.3. CS3 Contributing Scenario - Worker: Material transfers (PROC8a)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.825 mg/m³	ECETOC TRA Worker v3	0.075
skin contact, systemic, long-term	2.742 mg/kg bw/day	ECETOC TRA Worker v3	0.439
combined routes, systemic, long-term	N.d.	ECETOC TRA Worker v3	0.514

2.3. CS4 Contributing Scenario - Worker: Material transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	1.65 mg/m³	ECETOC TRA Worker v3	0.15
skin contact, systemic, long-term	2.742 mg/kg bw/day	ECETOC TRA Worker v3	0.439
combined routes, systemic, long-term	N.d.	ECETOC TRA Worker v3	0.588

4. GUIDANCE FOR DOWNSTREAM USERS TO ASSESS WHETHER THEY COMPLY WITH THE LIMITS SET BY THE EXPOSURE SCENARIO

Guidance to check compliance with the exposure scenario: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

2-methoxy-1-methylethyl acetate

Substance identification
Chemical Name: 2-methoxy-1-methylethyl acetate
CAS number: 108-65-6
Date - Version: 02/08/2021 18.0

4. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC4: Industrial use of processing aids not becoming part of articles.

Operating conditions

Yearly amount used in EU: 63,050,000 kg
Daily amount per site: 105.087 kg
Minimum continuous emission days per year: 300
Emission factor to air: 27%
Emission factor in water: 2%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Treat air emissions to provide a typical removal efficiency of 70%.
Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.1338
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 79,180 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 0.04 mg/m³
Risk Characterization Ratio (RCR): 0.0001
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Continuous process (closed system) with sample collection.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Film formation - Fast drying.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.5
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Mixing operations. General exposure (closed system).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 93.85 mg/m³
Risk Characterization Ratio (RCR): 0.25
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application. Mixing operations (open systems).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (automatic/robotic).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Carry out in a vented booth or extracted enclosure. Effectiveness: 95%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 46.93 mg/m³
Risk Characterization Ratio (RCR): 0.13
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 2.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (manual).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Effectiveness: 70%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 281.56 mg/m³
Risk Characterization Ratio (RCR): 0.76
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 8.57 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Non-dedicated system.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Dedicated plant.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Material transfers. Drum/batch transfers. Transfer from containers. Dedicated plant.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 5.49 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC14: Production of preparations or articles by tableting, compression, extrusion or pelletising. Production or preparation of articles by tableting, compression, extrusion.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 3.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

5. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants
SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC4: Industrial use of processing aids not becoming part of articles.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 430kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 140.104 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure (closed system). General exposure.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Continuous process (closed system) with sample collection.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Film formation - Fast drying.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Mixing operations. General exposure (closed system).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 18.77 mg/m³
Risk Characterization Ratio (RCR): 0.05
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 15.02 mg/m³
Risk Characterization Ratio (RCR): 0.04
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application. Mixing operations (open systems).

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (automatic/robotic). Spraying (manual)

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 8.57 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC7: Industrial spray application. Spraying (manual).

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Non-dedicated system.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Dedicated plant.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Material transfers. Drum/batch transfers. Transfer from containers. Dedicated plant.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Industrial

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC14: Production of preparations or articles by tableting, compression, extrusion or pelletising. Production or preparation of articles by tableting, compression, extrusion.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 3.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

7 USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8a: Wide dispersive indoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste
Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 0.04 mg/m³
Risk Characterization Ratio (RCR): 0.0001
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
The use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Use in confined systems (closed system). Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Preparation of material for application

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 93.85 mg/m³
Risk Characterization Ratio (RCR): 0.25
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch process (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.
The use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 269.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Drum/batch transfers. Non-dedicated system.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Drum/batch transfers Dedicated plant.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0.51
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 5.49 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.
Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Carry out in a vented booth or extracted enclosure. Effectiveness: 80%.
Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 2.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally. Effectiveness: 30%.
Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.
Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 131.4 mg/m³
Risk Characterization Ratio (RCR): 0.36
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 21.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.42

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%.
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 14.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.28

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

8. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations
SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8a: Wide dispersive indoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: ERC8d: Wide dispersive outdoor use of processing aids in open systems.

Operating conditions

Yearly amount used in EU: 2,600,000 kgs
Daily amount per site: 433 kg
Minimum continuous emission days per year: 300
Emission factor to air: 80%
Emission factor in water: 10%
Emission factor in soil: 0.1%
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%
Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste
Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by freshwater and marine water.
Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC1: Use in closed process, no likelihood of exposure. General exposure (closed system).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure. General exposure. Use in confined systems (closed system). Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 15.02 mg/m³
Risk Characterization Ratio (RCR): 0.4
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC3: Use in batch process (synthesis or formulation). Preparation of material for application

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 18.77 mg/m³
Risk Characterization Ratio (RCR): 0.05
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation - Air drying.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Indoor use.
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC5: Mixing in batch processes for formulation of preparations and articles (multistage and/or significant contact). Preparation of material for application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Material transfers. Drum/batch transfers. Non-dedicated system.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Material transfers. Drum/batch transfers Dedicated plant.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC10: Application with rollers or brushes. Roller, spatula, jet application.

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Indoor/Outdoor: Outdoor use.
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions
Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%.
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%.
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 10.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.21

Guidance for downstream users
http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC11: Non-industrial spray application. Spraying (manual).

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC13: Treatment of articles by dipping, pouring, enamelling.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Indoor use.
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC15: Use as laboratory reagent. Laboratory activities.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 7.51 mg/m³
Risk Characterization Ratio (RCR): 0.02
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1. Effectiveness: 80%.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.
Exposure estimation: 28.29 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.56

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days a week
Indoor/Outdoor: Outdoor use.
Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

http://www.esig.org/en/regulatory-information/reach/ges-library/ges-library-3