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

1.1. Identificator de produs

Identificarea preparatului:

Nume comercial: FASSAFILL EPOXY COMP.A
Cod comercial: 1281
UFI: PKPY-Q5VS-1PDA-34JX

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

Utilizarea recomandată: Chit de rosturi epoxidic; 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. 1	Poate provoca o reacţie alergică a pielii.
Repr. 1B	Poate dăuna fertilităţii.
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 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.
H412	Nociv pentru mediul acvatic cu efecte pe termen lung.

Fraze de precauţie

P201	Procuraţi instrucţiuni speciale înainte de utilizare.
P261	Evitaţi să inspiraţi praful/fumul/gazul/ceața/vaporii/spray-ul.
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.

P501 Aruncați conținutul/recipientul în conformitate cu reglementarea națională.

Prevederi speciale:

EUH205 Conţine componenţi epoxidici. Poate provoca o reacţie alergică.

Conţine:

Formaldehidă, produse de reacție oligomerică cu 1-cloro-2,3-epoxipropan și fenol

oxiran, derivați mono[(alchiloxi C12-14)metil].

amestec de: sebacat de (1,2,2,6,6-pentametil-4-piperidil) și sebacat de metil și de 1,2,2,6,6-pentametil-4-piperidil

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

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: FASSAFILL EPOXY COMP.A

Componente periculoase în sensul Regulamentului CLP şi clasificarea corespunzătoare:

Cantitate	Nume	Nr. de Ident.	Clasificare	Număr de înregistrare:
≥15 - <20 %	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
≥3 - <5 %	Formaldehidă, produse de reacție oligomerică cu 1-cloro-2,3-epoxipropan și fenol	EC:701-263-0	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411	01-2119454392-40-xxxx
≥1 - <2.5 %	oxiran, derivați mono[(alchiloxi C12-14)metil].	CAS:68609-97-2 EC:271-846-8 Index:603-103-00-4	Skin Irrit. 2, H315; Skin Sens. 1, H317; Repr. 1B, H360F	01-2119485289-22-xxxx
≥0.1 - <0.3 %	amestec de: sebacat de (1,2,2,6,6-pentametil-4-piperidil) și sebacat de metil și de 1,2,2,6,6-pentametil-4-piperidil	CAS:1065336-91-5 EC:915-687-0	Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Repr. 2, H361f, M-Chronic:1, M-Acute:1	01-2119491304-40-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

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

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

Formaldehidă, produse de reacție oligomerică cu 1-cloro-2,3-epoxipropan și fenol

Cale de expunere: Apă dulce; PNEC Limită: 0.003 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.3 µg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.029 mg/kg

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.294 mg/kg

Cale de expunere: Sol; PNEC Limită: 0.237 mg/kg

oxiran, derivați mono[(alchiloxi C12-14)metil].

CAS: 68609-97-2 Cale de expunere: Apă dulce; PNEC Limită: 0.106 mg/l

Cale de expunere: Apă sărată; PNEC Limită: 0.011 mg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 30.72 mg/kg

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 307.16 mg/kg

Cale de expunere: Sol; PNEC Limită: 1.234 mg/kg

amestec de: sebacat de (1,2,2,6,6-pentametil-4-piperidil) și sebacat de metil și de 1,2,2,6,6-pentametil-4-piperidil

CAS: 1065336-91-5 Cale de expunere: Apă sărată; PNEC Limită: 0.22 µg/l

Cale de expunere: Apă dulce; PNEC Limită: 2.2 µg/l

Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 1 mg/l

Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.11 mg/kg

Cale de expunere: Sedimente în apă dulce; PNEC Limită: 1.05 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 0.21 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

Formaldehidă, produse de reacție oligomerică cu 1-cloro-2,3-epoxipropan și fenol

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: 0.008 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

oxiran, derivați mono[(alchiloxi C12-14)metil].

CAS: 68609-97-2 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice

Lucrător profesionist: 3.6 mg/m3; Consumator: 0.87 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 1 mg/kg; Consumator: 0.5 mg/kg

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

amestec de: sebacat de (1,2,2,6,6-pentametil-4-piperidil) și sebacat de metil și de 1,2,2,6,6-pentametil-4-piperidil

CAS: 1065336-91-5 Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 1.8 mg/kg; Consumator: 0.9 mg/kg

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător profesionist: 1.27 mg/m3; Consumator: 0.31 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 0.18 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); NBR (cauciuc nitrilic): grosime >= 0.4 mm; timp de penetrare >= 480 min. FKM (fluor cauciuc): 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: Solid

Aspect: Solid păstos

Culoare: variat

Miros: caracteristic

Pragul de miros: N.D.

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

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

Inflamabilitatea: neinflamabil

Limita inferioară și superioară de explozie: N.A.

Punctul de aprindere: N.A.

Temperatura de autoaprindere: N.A.

Temperatura de descompunere: N.A.

pH: N.A. (Nu se aplică datorită naturii produsului)

Viscozitatea cinematică: N.A.

Solubilitatea in apa: Insolubil

Solubilitate în ulei: Nu există date disponibile

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

Presiunea vaporilor: N.D.

Densitatea și/sau densitatea relativă: 1.66 ± 0.02 kg/l (Metoda internă)

Densitatea relativă a vaporilor: N.A.

Caracteristicile particulei:

Acest produs conține nanomateriale sub formă sferoidală și amorfă, cu un tratament de suprafață/un strat de acoperire.

9.2. Alte informații

Proprietati explozive: N.D.

Proprietati oxidante: N.D.

SECȚIUNEA 10: Stabilitate și reactivitate

10.1. Reactivitate

Stabilă în condiţii normale

10.2. Stabilitate chimică

În timp, produsul poate genera faze lichide.

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: Informaţii 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. 1(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

Formaldehidă, produse de reacție oligomerică cu 1-cloro-2,3-epoxipropan și fenol

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

LD50 Oral Șobolan > 5000 mg/kg

oxiran, derivați mono[(alchiloxi C12-14)metil].

CAS: 68609-97-2 a) toxicitate acută LC0 Vapori de inhalare Șobolan > 0.15 mg/l 7h
LD50 Oral Șobolan > 2000 mg/kg
LD50 Piele Iepure > 4000 mg/kg

amestec de: sebacat de (1,2,2,6,6-pentametil-4-piperidil) și sebacat de metil și de 1,2,2,6,6-pentametil-4-piperidil

CAS: 1065336-91-5 a) toxicitate acută LD50 Oral Șobolan > 3230 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:

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

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

Formaldehidă, produse de reacție oligomerică cu 1-cloro-2,3-epoxipropan și fenol

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

oxiran, derivați mono[(alchiloxi C12-14)metil].

CAS: 68609-97-2 a) Toxicitate acvatică acută: LL50 Pește > 100 mg/l 96h
a) Toxicitate acvatică acută: EL50 Daphnia 7.2 mg/l 48h
a) Toxicitate acvatică acută: IC50 Alge 843.75 mg/l 72h

amestec de: sebacat de (1,2,2,6,6-pentametil-4-piperidil) și sebacat de metil și de 1,2,2,6,6-pentametil-4-piperidil

CAS: 1065336-91-5 a) Toxicitate acvatică acută: LC50 Pește 0.9 mg/l 96h
a) Toxicitate acvatică acută: NOEC Alge 0.22 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 6.3 mg/l 21d

12.2. Persistență și degradabilitate

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

CAS: 1675-54-3 Degradabil în mod lent

Formaldehidă, produse de reacție oligomerică cu 1-cloro-2,3-epoxipropan și fenol

Degradabil în mod lent

oxiran, derivați mono[(alchiloxi C12-14)metil].

CAS: 68609-97-2 Degradabil în mod rapid

12.3. Potențial de bioacumulare

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

CAS: 1675-54-3 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

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

Nu sunt clasificate ca periculoase din punct de vedere al regulamentelor de transport

14.1. Numărul ONU sau numărul de identificare

N/A

14.2. Denumirea corectă ONU pentru expediție

ADR-Nume transport îmbarcare: N/A

IATA-Nume transport îmbarcare: N/A

IMDG-Nume transport îmbarcare: N/A

14.3. Clasa (clasele) de pericol pentru transport

ADR-clasa: N/A

IATA-Clasa: N/A

IMDG-Clasa: N/A

14.4. Grupul de ambalare

ADR-Grup Ambalare: N/A

IATA-Grup Ambalare: N/A

IMDG-Grup Ambalare: N/A

14.5. Pericole pentru mediul înconjurător

Poluant marin: Nu

Poluant ambiental: Nu

IMDG-EMS: N/A

14.6. Precauții speciale pentru utilizatori

Drumuri şi Căi Ferate (ADR-RID):

scutiri ADR:

ADR-Etichetă: N/A

ADR - Număr de identificare a pericolului: N/A

ADR-Dispoziţii Speciale: N/A

ADR-Cod de restricţie în tunel:

Aer (IATA):

IATA-Aeronavă de pasagerit: N/A

IATA-Aeronavă de marfă: N/A

IATA-Etichetă: N/A

IATA-Riscul secundar: N/A

IATA-Erg: N/A

IATA-Dispoziţii Speciale: N/A

Mare (IMDG):

IMDG-Depozitare și manipulare: N/A

IMDG-Segregare: N/A

IMDG-Riscul secundar: N/A

IMDG-Dispoziţii Speciale: N/A

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)

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

Restricții referitoare la produs: Nici una

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 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
H315	Provoacă iritarea pielii.
H317	Poate provoca o reacţie alergică a pielii.
H319	Provoacă o iritare gravă a ochilor.
H360F	Poate dăuna fertilităţii.
H361f	Susceptibil de a dăuna fertilităţii.
H400	Foarte toxic pentru mediul acvatic.
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
3.2/2	Skin Irrit. 2	Iritarea pielii, Categoria 2
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
3.7/1B	Repr. 1B	Toxicitate pentru reproducere, Categoria 1B
3.7/2	Repr. 2	Toxicitate pentru reproducere, Categoria 2
4.1/A1	Aquatic Acute 1	Pericol acut pentru mediul acvatic, Categoria 1
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. 1, H317	Metoda de calcul
Repr. 1B, H360F	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 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

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Substance identification
Chemical Name: Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
CAS number: 1065336-91-5
EC number: 915-687-0
Registration Number: 01-2119491304-40-XXXX
Date - Version: 04/04/2022

INDUSTRIAL USE PRODUCT CATEGORIES (PC1, PC9a, PC32) SECTORS OF USE (SU15, SU17)

1. TITLE SECTION

EXPOSURE SCENARIO NAME
Industrial use of HALS in articles

USE DESCRIPTORS
Product Categories:
Adhesives, Sealants (PC1) Coatings and Paints, Thinners, paint removers (PC9a) Polymer Preparations and Compounds (PC32)
Sectors of use:
Manufacture of fabricated metal products, except machinery and equipment (SU 15). General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment (SU 17).

Environment
1. Industrial use of HALS in articles - ERC5

Worker
2. Mixing or blending in batch processes for formulation of preparations and articles - PROC5
3: Calendering operations - PROC6
4: Industrial spraying - PROC7
5: Transfer of chemicals from/to vessels/large containers at non dedicated facilities. - PROC8a
6: Transfer of chemicals from/to vessels/large containers at dedicated facilities - PROC8b
7: Roller or brush application - PROC10
8: Treatment of articles by dipping and pouring - PROC13
9: Low energy manipulation of substances bound in materials and/or articles - PROC21
10: High (mechanical) energy work-up of substances bound in materials and/or articles - PROC24

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1 ENVIRONMENTAL EXPOSURE CONTROL - Industrial use of HALS in articles - (ERC5)

Amount used, frequency and duration of use (or from service life)
Daily amount per site: ≤ 0,1 ton/day
Daily amount per site: ≤ 22,5 ton/year

Conditions and measures for the biological waste water treatment plant
Municipal sewage treatment plant is assumed.
Assumed domestic sewage treatment plant flow: ≥ 2E3 m³/day

Conditions and measures related to external treatment of waste (including article waste)
Dispose of waste product or used containers according to local regulations.

Other conditions affecting environmental exposure
Receiving surface water flow: ≥1.8E4 m³/day

2.2 WORKERS EXPOSURE CONTROL - Mixing or blending in batch processes for formulation of preparations and articles - (PROC5)

Product features (article)
Liquid.
Covers concentrations up to 5%

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide specifically designed and maintained LEV (fixed capturing hood type, on-tool extraction or enclosing hood type). Ensure effectiveness is at least 90%.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personal operating under supervision. Ensure regular inspection, cleaning and maintenance of equipment and machines. Clear spills immediately. Ensure daily cleaning of the equipment.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.3 WORKERS EXPOSURE CONTROL - Calendering operations - (PROC6)

Product features (article)
Liquid.
Covers concentrations up to 5%

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide specifically designed and maintained LEV (fixed capturing hood type, on-tool extraction or enclosing hood type). Ensure effectiveness is at least 90%.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personal operating under supervision. Ensure regular inspection, cleaning and maintenance of equipment and machines. Clear spills immediately. Ensure daily cleaning of the equipment.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.4 WORKERS EXPOSURE CONTROL - Industrial spraying - (PROC7)

Product features (article)
Liquid.
Covers concentrations up to 1%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 1 h/day.

Technical and organizational conditions and measures
Provide enclosing hood with very high effectiveness (such as fume cupboard) or effective ventilation by spray booth according to EN 16985. Ensure effectiveness is at least 95%.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personal operating under supervision. Ensure regular inspection, cleaning and maintenance of equipment and machines. Clear spills immediately. Ensure daily cleaning of the equipment.
Provide a good standard of controlled ventilation (5 to 10 air changes per hour).

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.5 WORKERS EXPOSURE CONTROL - Transfer of chemicals from/to vessels/ large containers at non dedicated facilities. - (PROC8b)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide specifically designed and maintained LEV (fixed capturing hood type, on-tool extraction or enclosing hood type). Ensure effectiveness is at least 90%.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personal operating under supervision. Ensure regular inspection, cleaning and maintenance of equipment and machines. Clear spills immediately. Ensure daily cleaning of the equipment.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.6 WORKERS EXPOSURE CONTROL - Transfer of chemicals from/to vessels/ large containers at dedicated facilities - (PROC8b)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide enclosing hood with very high effectiveness (such as fume cupboard) or effective ventilation by spray booth according to EN 16985. Ensure effectiveness is at least 95%.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personal operating under supervision. Ensure regular inspection, cleaning and maintenance of equipment and machines. Clear spills immediately. Ensure daily cleaning of the equipment.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.7 WORKERS EXPOSURE CONTROL - Roller or brush application - (PROC10)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide specifically designed and maintained LEV (fixed capturing hood type, on-tool extraction or enclosing hood type). Ensure effectiveness is at least 90%.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personal operating under supervision. Ensure regular inspection, cleaning and maintenance of equipment and machines. Clear spills immediately. Ensure daily cleaning of the equipment.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.8 WORKERS EXPOSURE CONTROL - Treatment of articles by dipping and pouring - (PROC13)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide specifically designed and maintained LEV (fixed capturing hood type, on-tool extraction or enclosing hood type). Ensure effectiveness is at least 90%.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personal operating under supervision. Ensure regular inspection, cleaning and maintenance of equipment and machines. Clear spills immediately. Ensure daily cleaning of the equipment.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.9 WORKERS EXPOSURE CONTROL - Low energy manipulation of substances bound in materials and/or articles - (PROC21)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.10 WORKERS EXPOSURE CONTROL - High (mechanical) energy work-up of substances bound in materials and/or articles - (PROC24)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1 ENVIRONMENTAL RELEASE AND EXPOSURE - Industrial use of HALS in articles - (ERC5)

Release route	Release rate	Release estimation method
Water	0.01 kg/day	Estimated release factor
Air	0 kg/day	Estimated release factor
Soil	0.01 kg/day	Estimated release factor

Protection goal	Exposure estimate	RCR
Fresh water	3.72E-4 mg/L (EUSES 2.1.2)	0.169
Sediment (freshwater)	0.177 mg/kg dw (EUSES 2.1.2)	0.169
Sea water	3.7E-5 mg/L (EUSES 2.1.2)	0.168
Sediment (marine water)	0.018 mg/kg dw (EUSES 2.1.2)	0.16
Wastewater treatment plant	3.2E-3 mg/L (EUSES 2.1.2)	< 0.01
Farmland	0.013 mg/kg dw (EUSES 2.1.2)	0.063
Man via environment - Inhalation (systemic effects)	2.77E-8 mg/m³ (EUSES 2.1.2)	< 0.01
Man via environment - Oral	3.24E-5 mg/kg bw/day (EUSES 2.1.2)	< 0.01
Man via environment - combined routes	-	< 0.01

3.2 WORKERS EXPOSURE - Mixing or blending in batch processes for formulation of preparations and articles - (PROC5)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.037 mg/m³ (TRA Workers 3.0)	0.029
Dermal, systemic, long term	0.548 mg/kg bw/day (TRA Workers 3.0)	0.305
Combined, systemic, long term		0.334

3.3 WORKERS EXPOSURE - Calendering operations - (PROC6)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.037 mg/m³ (TRA Workers 3.0)	0.029
Dermal, systemic, long term	1.097 mg/kg bw/day (TRA Workers 3.0)	0.61
Combined, systemic, long term		0.638

3.4 WORKERS EXPOSURE - Industrial spraying - (PROC7)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.55 mg/m³ (TRA Workers 3.0)	0.433
Dermal, systemic, long term	0.857 mg/kg bw/day (TRA Workers 3.0)	0.476
Combined, systemic, long term		0.909

3.5 WORKERS EXPOSURE - Transfer of chemicals from/to vessels/large containers at non dedicated facilities. - (PROC8a)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.037 mg/m³ (TRA Workers 3.0)	0.029
Dermal, systemic, long term	0.548 mg/kg bw/day (TRA Workers 3.0)	0.305
Combined, systemic, long term		0.334

3.6 WORKERS EXPOSURE - Transfer of chemicals from/to vessels/large containers at dedicated facilities - (PROC8b)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.018 mg/m³ (TRA Workers 3.0)	0.014
Dermal, systemic, long term	0.548 mg/kg bw/day (TRA Workers 3.0)	0.305
Combined, systemic, long term		0.319

3.7 WORKERS EXPOSURE - Roller or brush application - (PROC10)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.037 mg/m³ (TRA Workers 3.0)	0.029
Dermal, systemic, long term	1.097 mg/kg bw/day (TRA Workers 3.0)	0.61
Combined, systemic, long term		0.638

3.8 WORKERS EXPOSURE - Treatment of articles by dipping and pouring - (PROC13)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.5 mg/m³ (TRA Workers 3.0)	0.394
Dermal, systemic, long term	1.071 mg/kg bw/day (TRA Workers 3.0)	0.595
Combined, systemic, long term		0.989

3.9 WORKERS EXPOSURE - Low energy manipulation of substances bound in materials and/or articles - (PROC21)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.2 mg/m³ (ECETOC TRA Workers)	0.157
Dermal, systemic, long term	0.1 mg/kg bw/day (ECETOC TRA Workers)	0.056
Combined, systemic, long term		0.213

3.10 WORKERS EXPOSURE - High (mechanical) energy work-up of substances bound in materials and/or articles - (PROC24)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.2 mg/m³ (ECETOC TRA Workers)	0.157
Dermal, systemic, long term	0.1 mg/kg bw/day (ECETOC TRA Workers)	0.056
Combined, systemic, long term		0.213

USO DIFFUSO DA PARTE DI OPERATORI PROFESSIONALI PRODUCT CATEGORIES (PC1, PC9a, PC32) SECTORS USE (SU15, SU17, SU19)

1. TITLE SECTION

EXPOSURE SCENARIO NAME

Wide dispersive outdoor use of HALS resulting in inclusion into a matrix

USE DESCRIPTORS

Product Categories:
Adhesives, Sealants (PC1) Coatings and Paints, Thinners, paint removers (PC 9a), Polymer Preparations and Compounds (PC32)
Sectors of use:
Manufacture of fabricated metal products, except machinery and equipment (SU 15). General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment (SU 17). Building and construction work (SU 19)

Environment

1. Wide dispersive outdoor use of HALS resulting in inclusion into a matrix - ERC8f
2. Wide dispersive indoor use of HALS resulting in inclusion into a matrix - ERC8c

Worker

3. Mixing or blending in batch processes for formulation of preparations and articles - PROC5
4: Transfer of chemicals from/to vessels/large containers at non dedicated facilities - PROC8a
5: Transfer of chemicals from/to vessels/large containers at dedicated facilities - PROC8b
6: Roller or brush application - PROC10
7: Non-industrial spraying - PROC13
8: Low energy manipulation of substances bound in materials and/or articles - PROC21
9: High (mechanical) energy work-up of substances bound in materials and/or articles - PROC24

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1 ENVIRONMENTAL EXPOSURE CONTROL - Wide dispersive outdoor use of HALS resulting in inclusion into a matrix - (ERC8f)

Conditions and measures for the biological waste water treatment plant

Municipal sewage treatment plant is assumed.

Conditions and measures related to external treatment of waste (including article waste)

Dispose of waste product or used containers according to local regulations.

2.2 ENVIRONMENTAL EXPOSURE CONTROL - Wide dispersive indoor use of HALS resulting in inclusion into a matrix - (ERC8c)

Conditions and measures for the biological waste water treatment plant

Municipal sewage treatment plant is assumed.

Conditions and measures related to external treatment of waste (including article waste)

Dispose of waste product or used containers according to local regulations.

2.3 WORKERS EXPOSURE CONTROL - Mixing or blending in batch processes for formulation of preparations and articles - (PROC5)

Product features (article)
Liquid.
Covers concentrations up to 5%

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.4 WORKERS EXPOSURE CONTROL - Transfer of chemicals from/to vessels/ large containers at non dedicated facilities - (PROC8a)

Product features (article)
Liquid.
Covers concentrations up to 5%

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.5 WORKERS EXPOSURE CONTROL - Transfer of chemicals from/to vessels/ large containers at dedicated facilities - (PROC8b)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.6 WORKERS EXPOSURE CONTROL - Roller or brush application - (PROC10)

Product features (article)
Liquid.
Covers concentrations up to 1%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide specifically designed and maintained LEV (receiving hood type). Ensure effectiveness is at least 80%.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear chemically resistant gloves (tested to EN374) in combination with basic employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

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

Product features (article)
Liquid.
Covers concentrations up to 1%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Technical and organizational conditions and measures
Provide specifically designed and maintained LEV (receiving hood type). Ensure effectiveness is at least 80%.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear chemically resistant gloves (tested to EN374) in combination with basic employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.8 WORKERS EXPOSURE CONTROL - Low energy manipulation of substances bound in materials and/or articles - (PROC21)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

2.9 WORKERS EXPOSURE CONTROL - High (mechanical) energy work-up of substances bound in materials and/or articles - (PROC24)

Product features (article)
Liquid.
Covers concentrations up to 5%.

Amount used (or contained in articles), frequency and duration of use/exposure
Covers use up to 8 h/day

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands. For further specifications, refer to section 8 of the SDS.

Other conditions affecting worker exposure
Indoor use.
Assumes process temperature up to 40 °C

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1 ENVIRONMENTAL RELEASE AND EXPOSURE - Wide dispersive outdoor use of HALS resulting in inclusion into a matrix - (ERC8f)

Release route	Release rate	Release estimation method
Water	0.05 kg/day	ERC
Air	0.15 kg/day	ERC
Soil	5E-3 kg/day	ERC

Protection goal	Exposure estimate	RCR
Fresh water	1.64E-3 mg/L (EUSES 2.1.2)	0.746
Sediment (freshwater)	0.782 mg/kg dw (EUSES 2.1.2)	0.745
Sea water	1.64E-4 mg/L (EUSES 2.1.2)	0.745
Sediment (marine water)	0.078 mg/kg dw (EUSES 2.1.2)	0.71
Wastewater treatment plant	0.016 mg/L (EUSES 2.1.2)	0.016
Farmland	0.064 mg/kg dw (EUSES 2.1.2)	0.307
Man via environment - Inhalation (systemic effects)	2.79E-8 mg/m³ (EUSES 2.1.2)	< 0.01
Man via environment - Oral	1.82E-4 mg/kg bw/day (EUSES 2.1.2)	< 0.01
Man via environment - combined routes	-	< 0.01

3.2 ENVIRONMENTAL RELEASE AND EXPOSURE - Wide dispersive indoor use of HALS resulting in inclusion into a matrix - (ERC8c)

Release route	Release rate	Release estimation method
Water	0.014 kg/day	ERC
Air	6.75E-3 kg/day	ERC
Soil	0 kg/day	ERC

Protection goal	Exposure estimate	RCR
Fresh water	4.83E-4 mg/L (EUSES 2.1.2)	0.22
Sediment (freshwater)	0.23 mg/kg dw (EUSES 2.1.2)	0.219
Sea water	4.81E-5 mg/L (EUSES 2.1.2)	0.219
Sediment (marine water)	0.023 mg/kg dw (EUSES 2.1.2)	0.208
Wastewater treatment plant	4.32E-3 mg/L (EUSES 2.1.2)	< 0.01
Farmland	0.018 mg/kg dw (EUSES 2.1.2)	0.084
Man via environment - Inhalation (systemic effects)	2.77E-8 mg/m³ (EUSES 2.1.2)	< 0.01
Man via environment - Oral	5.24E-5 mg/kg bw/day (EUSES 2.1.2)	< 0.01
Man via environment - combined routes	-	< 0.01

3.3 WORKERS EXPOSURE - Mixing or blending in batch processes for formulation of preparations and articles - (PROC5)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.367 mg/m³ (TRA Workers 3.0)	0.289
Dermal, systemic, long term	0.548 mg/kg bw/day (TRA Workers 3.0)	0.305
Combined, systemic, long term		0.593

3.4 WORKERS EXPOSURE - Transfer of chemicals from/to vessels/large containers at non dedicated facilities - (PROC8a)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.367 mg/m³ (TRA Workers 3.0)	0.289
Dermal, systemic, long term	0.548 mg/kg bw/day (TRA Workers 3.0)	0.305
Combined, systemic, long term		0.593

3.5 WORKERS EXPOSURE - Transfer of chemicals from/to vessels/large containers at dedicated facilities - (PROC8b)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.367 mg/m³ (TRA Workers 3.0)	0.289
Dermal, systemic, long term	0.548 mg/kg bw/day (TRA Workers 3.0)	0.305
Combined, systemic, long term		0.593

3.6 WORKERS EXPOSURE - Roller or brush application - (PROC10)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.97 mg/m³ (TRA)	0.764
Dermal, systemic, long term	0.274 mg/kg bw/day (TRA Workers 3.0)	0.152
Combined, systemic, long term		0.916

3.7 WORKERS EXPOSURE - Non-industrial spraying - (PROC11)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.5 mg/m³ (TRA)	0.394
Dermal, systemic, long term	1.071 mg/kg bw/day (TRA Workers 3.0)	0.595
Combined, systemic, long term		0.989

3.8 WORKERS EXPOSURE - Low energy manipulation of substances bound in materials and/or articles - (PROC21)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.2 mg/m³ (ECETOC TRA Workers)	0.157
Dermal, systemic, long term	0.1 mg/kg bw/day (ECETOC TRA Workers)	0.056
Combined, systemic, long term		0.213

3.9 WORKERS EXPOSURE - High (mechanical) energy work-up of substances bound in materials and/or articles - (PROC24)

Route of exposure and type of effects	Estimated exposure	RCR
Inhalation, systemic, long term	0.6 mg/m³ (ECETOC TRA Workers)	0.472
Dermal, systemic, long term	0.1 mg/kg bw/day (ECETOC TRA Workers)	0.056
Combined, systemic, long term		0.528

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

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

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

1.1. Identificator de produs

Identificarea preparatului:

Nume comercial: FASSAFILL EPOXY COMP.B

Cod comercial: 1281.B

UFI: HRWQ-7RWA-4140-AGT0

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

Utilizarea recomandată: Întăritor pentru epoxidice; 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 Corr. 1B	Provoacă arsuri grave ale pielii şi lezarea ochilor.
Eye Dam. 1	Provoacă leziuni oculare grave.
Skin Sens. 1	Poate provoca o reacţie alergică a pielii.
Aquatic Acute 1	Foarte toxic pentru mediul acvatic.
Aquatic Chronic 1	Foarte 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

H314	Provoacă arsuri grave ale pielii şi lezarea ochilor.
H317	Poate provoca o reacţie alergică a pielii.
H410	Foarte toxic pentru mediul acvatic cu efecte pe termen lung.

Fraze de precauţie

P260	Nu inspiraţi praful/fumul/gazul/ceața/vaporii/spray-ul.
P273	Evitaţi dispersarea în mediu.
P280	Purtaţi mănuşi/echipamente 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.

P391 Colectaţi scurgerile de produs.

Conţine:

3-aminometil-3,5,5-trimetilciclohexilamină

amine, polietilenepoli-, trietilenotetramină fracție

Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină

propilidintrimetanol, propoxilat, produsul de reacție cu amoniac

N,N-dimetil-1,3-diaminopropan

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: FASSAFILL EPOXY COMP.B

Componente periculoase în sensul Regulamentului CLP şi clasificarea corespunzătoare:

Cantitate	Nume	Nr. de Ident.	Clasificare	Număr de înregistrare:
≥50 - <60 %	Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină	CAS:68082-29-1 EC:500-191-5	Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:1	01-2119972320-44-xxxx
≥15 - <20 %	propilidintrimetanol, propoxilat, produsul de reacție cu amoniac	CAS:39423-51-3 EC:500-105-6	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411 Toxicitate Acută Estimată: ATE - Oral: 550mg/kg gc ATE - Dermică: 1000mg/kg gc	01-2119556886-20-xxxx
≥12.5 - <15 %	3-aminometil-3,5,5-trimetilciclohexilamină	CAS:2855-13-2 EC:220-666-8 Index:612-067-00-9	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Limite de concentrație specifice: C ≥ 0.001%: Skin Sens. 1A H317 Toxicitate Acută Estimată: ATE - Oral: 1030mg/kg gc	01-2119514687-32-xxxx
≥1 - <2.5 %	N,N-dimetil-1,3-diaminopropan	CAS:109-55-7 EC:203-680-9 Index:612-061-00-6	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 2, H361d STOT SE 3, H335 Toxicitate Acută Estimată: ATE - Oral: 410mg/kg gc ATE - Dermică: 1000mg/kg gc	01-2119486842-27-xxxx
≥0.3 - <0.5 %	amine, polietilenepoli-, trietilenotetramină fracție	CAS:90640-67-8 EC:292-588-2	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412, EUH071	01-2119487919-13-xxxx

Toxicitate Acută Estimată:
ATE - Oral: 1716mg/kg gc
ATE - Dermică: 1465mg/kg gc

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 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

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

Valori limită de expunere PNEC

Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină

CAS: 68082-29-1 Cale de expunere: Apă dulce; PNEC Limită: 2.2 µg/l
Cale de expunere: Apă sărată; PNEC Limită: 0.22 µg/l
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 3.84 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 2200000 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 220000 mg/kg
Cale de expunere: Sol; PNEC Limită: 440000 mg/kg

propilidintrimetanol, propoxilat, produsul de reacție cu amoniac

CAS: 39423-51-3 Cale de expunere: Apă dulce; PNEC Limită: 0.004 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 0 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.022 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.002 mg/kg
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l
Cale de expunere: Sol (agricol); PNEC Limită: 0.002 mg/kg

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 Cale de expunere: Apă dulce; PNEC Limită: 0.06 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 0.006 mg/l
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 3.18 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 5.784 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.578 mg/kg
Cale de expunere: Sol (agricol); PNEC Limită: 1.121 mg/kg

N,N-dimetil-1,3-diaminopropan

CAS: 109-55-7 Cale de expunere: Apă dulce; PNEC Limită: 0.073 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 0.007 mg/l
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 10 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 0.735 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.073 mg/kg
Cale de expunere: Sol; PNEC Limită: 0.104 mg/kg

amine, polietilenepoli-, trietilenotetramină fracție

CAS: 90640-67-8 Cale de expunere: Apă dulce; PNEC Limită: 0.027 mg/l
Cale de expunere: Apă sărată; PNEC Limită: 0.003 mg/l
Cale de expunere: Microorganisme în tratamente de epurare; PNEC Limită: 0.13 mg/l
Cale de expunere: Sedimente în apă dulce; PNEC Limită: 8.572 mg/kg
Cale de expunere: Sedimente în apă sărată; PNEC Limită: 0.857 mg/kg

Cale de expunere: Sol (agricol); PNEC Limită: 1.25 mg/kg

Nivel Derivat Fără Efect (DNEL)

Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină

CAS: 68082-29-1 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 49.3 mg/m3; Consumator: 8.7 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 14 mg/kg; Consumator: 5 mg/kg

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 5 mg/kg

propilidintrimetanol, propoxilat, produsul de reacție cu amoniac

CAS: 39423-51-3 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 4.9 mg/m3

Cale de expunere: Epidermic uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 4 mg/kg

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

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte locale
Lucrător profesionist: 0.073 mg/m3

Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen scurt, efecte locale
Lucrător profesionist: 0.073 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 0.3 mg/kg/day

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen scurt, efecte sistemice
Consumator: 0.3 mg/kg/day

N,N-dimetil-1,3-diaminopropan

CAS: 109-55-7 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 1.2 mg/m3

amine, polietilenepoli-, trietilenotetramină fracție

CAS: 90640-67-8 Cale de expunere: Prin inhalare umană; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Lucrător: 0.54 mg/m3; Consumator: 0.096 mg/m3

Cale de expunere: Oral uman; Frecvenţă de expunere: Pe termen lung, efecte sistemice
Consumator: 0.14 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); NBR (cauciuc nitrilic): grosime >= 0.4 mm; timp de penetrare >= 480 min. FKM (fluor cauciuc): 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: Solid

Aspect: Solid păstos

Culoare: translucid

Miros: ușor amoniacal

Pragul de miros: N.D.

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

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

Inflamabilitatea: neinflamabil

Limita inferioară și superioară de explozie: N.A.

Punctul de aprindere: N.A.

Temperatura de autoaprindere: N.A.

Temperatura de descompunere: N.A.

pH: >=11.30<=11.50 (Metoda internă - 20% în dispersie apoasă)

Viscozitatea cinematică: N.A.

Solubilitatea in apa: miscibil în toate relațiile

Solubilitate în ulei: Nu există date disponibile

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

Presiunea vaporilor: N.D.

Densitatea și/sau densitatea relativă: 1.10 ± 0.02 kg/l (Metoda internă)

Densitatea relativă a vaporilor: N.A.

Caracteristicile particulei:

Acest produs conține nanomateriale sub formă sferoidală și amorfă, cu un tratament de suprafață/un strat de acoperire.

9.2. Alte informații

Proprietati explozive: N.D.

Proprietati oxidante: N.D.

SECȚIUNEA 10: Stabilitate și reactivitate

10.1. Reactivitate

Stabilă în condiţii normale

10.2. Stabilitate chimică

În timp, produsul poate genera faze lichide.

10.3. Posibilitatea de reacții periculoase

Se poate aprinde in contact cu agenti puternic oxidanti

Poate produce gaze inflamabile și/ sau toxice in contact cu metale elementare (alcalii și soluri alcaline), acizi minerali oxidanți, substanțe organice halogenate, peroxizi și hidroperoxizi organici, agenți de oxidare puternici, agenți de reducere puternici.

10.4. Condiții de evitat

Evitați apropierea de surse de căldură.

10.5. Materiale incompatibile

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	Neclasificat
	Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
b) corodarea/iritarea pielii	Produsul este clasificat: Skin Corr. 1B(H314)
c) lezarea gravă/iritarea ochilor	Produsul este clasificat: Eye Dam. 1(H318)
d) sensibilizarea căilor respiratorii sau a pielii	Produsul este clasificat: Skin Sens. 1(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 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:

Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină

CAS: 68082-29-1	a) toxicitate acută	LD50 Oral Șobolan > 2000 mg/kg
		LD50 Piele Șobolan > 2000 mg/kg

propilidintrimetanol, propoxilat, produsul de reacție cu amoniac

CAS: 39423-51-3	a) toxicitate acută	ATE - Oral: 550 mg/kg gc
		ATE - Dermică: 1000 mg/kg gc

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2	a) toxicitate acută	ATE - Oral: 1030 mg/kg gc
		LC50 Inhalări de aerosoli Șobolan > 5.01 mg/l 4h
		LD50 Piele Șobolan > 2000 mg/kg gc

N,N-dimetil-1,3-diaminopropan

CAS: 109-55-7	a) toxicitate acută	ATE - Oral: 410 mg/kg gc
		ATE - Dermică: 1000 mg/kg gc

amine, polietilenepoli-, trietilenotetramină fracție

CAS: 90640-67-8	a) toxicitate acută	ATE - Oral: 1716 mg/kg gc
		ATE - Dermică: 1465 mg/kg gc

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:

Foarte toxic pentru mediul acvatic cu efecte pe termen lung.

Lista proprietatilor Eco-toxicologice ale produsului

Produsul este clasificat: Aquatic Acute 1(H400), Aquatic Chronic 1(H410)

Lista componentelor cu proprietăţi ecotoxicologice

Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină

CAS: 68082-29-1	a) Toxicitate acvatică acută: LC50 Pește > 0.15 mg/l 96h
	a) Toxicitate acvatică acută: EC50 Daphnia 1.2 mg/l 48h
	a) Toxicitate acvatică acută: EC50 Alge 0.15 mg/l 72h
	b) Toxicitatea acvatică cronică: NOEC Pește 0.1 mg/l 34d
	b) Toxicitatea acvatică cronică: NOEC Daphnia 0.16 mg/l 21d

propilidintrimetanol, propoxilat, produsul de reacție cu amoniac

CAS: 39423-51-3	a) Toxicitate acvatică acută: LC50 Pește > 100 mg/l 96h
	a) Toxicitate acvatică acută: EC50 Daphnia 13 mg/l 48h
	a) Toxicitate acvatică acută: ErC50 Alge 4.4 mg/l 72h
	b) Toxicitatea acvatică cronică: NOEC Alge 1 mg/l 72h

3-aminometil-3,5,5-trimetilciclohexilamină

CAS: 2855-13-2 a) Toxicitate acvatică acută: LC50 Pește 110 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 23 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge > 50 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 3 mg/l 21d

N,N-dimetil-1,3-diaminopropan
CAS: 109-55-7 a) Toxicitate acvatică acută: LC50 Pește 122 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 59.46 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 34 mg/l 72h
b) Toxicitatea acvatică cronică: NOEC Daphnia 3.64 mg/l - 22d

amine, polietilenepoli-, trietilenotetramină fracție
CAS: 90640-67-8 a) Toxicitate acvatică acută: LC50 Pește 330 mg/l 96h
a) Toxicitate acvatică acută: EC50 Daphnia 31.1 mg/l 48h
a) Toxicitate acvatică acută: EC50 Alge 20 mg/l 72h
b) Toxicitatea acvatică cronică: EC10 Daphnia 1.9 mg/l 21d
b) Toxicitatea acvatică cronică: NOEC Alge 1.34 mg/l 72h

12.2. Persistență și degradabilitate

Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină
CAS: 68082-29-1 Degradabil în mod lent

propilidintrimetanol, propoxilat, produsul de reacție cu amoniac
CAS: 39423-51-3 Degradabil în mod lent

3-aminometil-3,5,5-trimetilciclohexilamină
CAS: 2855-13-2 Degradabil în mod lent

N,N-dimetil-1,3-diaminopropan
CAS: 109-55-7 Degradabil în mod rapid

amine, polietilenepoli-, trietilenotetramină fracție
CAS: 90640-67-8 Degradabil în mod lent

12.3. Potențial de bioacumulare

3-aminometil-3,5,5-trimetilciclohexilamină
CAS: 2855-13-2 Nu este supus bioacumulării

N,N-dimetil-1,3-diaminopropan
CAS: 109-55-7 Nu este supus bioacumulării

amine, polietilenepoli-, trietilenotetramină fracție
CAS: 90640-67-8 Nu este supus bioacumulării

12.4. Mobilitate în sol

Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină
CAS: 68082-29-1 Test: Log Koc; Valoare: 5.750

3-aminometil-3,5,5-trimetilciclohexilamină
CAS: 2855-13-2 Test: Log Koc; Valoare: 2.970

N,N-dimetil-1,3-diaminopropan
CAS: 109-55-7 Test: Log Koc; Valoare: 1.810

amine, polietilenepoli-, trietilenotetramină fracție
CAS: 90640-67-8 Test: Log Koc; Valoare: 3.500

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

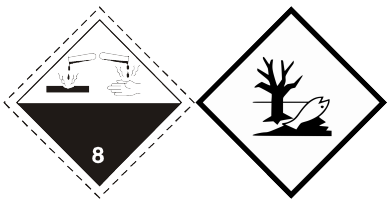
A se recupera, daca este posibil. A se trimite catre punctele de depozitare sau de incinerare, in conditii controlate. A se respecta regulamentele locale in vigoare

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

1759

14.2. Denumirea corectă ONU pentru expediție

ADR-Nume transport îmbarcare: SOLID COROZIV N.A.S (3-aminometil-3,5,5-trimetilciclohexilamină)

IATA-Nume transport îmbarcare: CORROSIVE SOLID, N.O.S. (3-aminometil-3,5,5-trimetilciclohexilamină)

IMDG-Nume transport îmbarcare: CORROSIVE SOLID, N.O.S. (3-aminometil-3,5,5-trimetilciclohexilamină)

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

Componentul toxic principal: Acizi grași, C18-nesaturați, dimeri, produse de reacție oligomeric cu acizi grași cu ulei înalt și trietilenotetramină

Poluant marin: Da

Poluant ambiental: Da

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: 859

IATA-Aeronavă de marfă: 863

IATA-Etichetă: 8

IATA-Riscul secundar: -

IATA-Erg: 8L

IATA-Dispoziţii Speciale: A3 A803

Mare (IMDG):

IMDG-Depozitare și manipulare: Category A

IMDG-Segregare: -

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)

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

Restricții referitoare la produs: Nici una

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: E1	100	200

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
EUH071	Corosiv pentru căile respiratorii.
H226	Lichid şi vapori inflamabili.
H302	Nociv în caz de înghiţire.
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.
H335	Poate provoca iritarea căilor respiratorii.
H361d	Susceptibil de a dăuna fătului.
H400	Foarte toxic pentru mediul acvatic.
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
2.6/3	Flam. Liq. 3	Lichid inflamabil, Categoria 3
3.1/4/Dermal	Acute Tox. 4	Toxicitate acută (dermică), Categoria 4
3.1/4/Oral	Acute Tox. 4	Toxicitate acută (orală), Categoria 4
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
3.4.2/1	Skin Sens. 1	Sensibilizarea pielii, Categoria 1
3.4.2/1A	Skin Sens. 1A	Sensibilizarea pielii, Categoria 1A
3.7/2	Repr. 2	Toxicitate pentru reproducere, Categoria 2
3.8/3	STOT SE 3	Toxicitate asupra unui organ ţintă specific – o singură expunere, Categoria 3
4.1/A1	Aquatic Acute 1	Pericol acut pentru mediul acvatic, Categoria 1
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 Corr. 1B, H314	Metoda de calcul
Eye Dam. 1, H318	Metoda de calcul
Skin Sens. 1, H317	Metoda de calcul
Aquatic Acute 1, H400	Metoda de calcul
Aquatic Chronic 1, H410	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 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

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Substance identification
Chemical Name: 3-aminomethyl-3,5,5-trimethylcyclohexylamine
CAS number: 2855-13-2
EU index number: 612-067-00-9
EINECS number: 220-666-8

ES1 Formulation or repackaging - INDUSTRIAL USES

1. TITLE SECTION

Exposure scenario name: Preparation and repackaging of substances and mixtures
Date - Version: 15/07/2020 - 1.0
Life cycle stage: Formulation or repackaging
Main user group: Industrial uses
Sector(s) of use: Industrial uses (SU3) - Large-scale production of basic chemicals (including petroleum products) (SU8) - Formulation [blending] of preparations and/or repackaging (SU10)

Contributing scenario - Environment
CS1 Wet formulation: ERC2

Contributing scenario - Worker
CS2 Use in closed systems: PROC3
CS3 Material Transfers: PROC8a
CS4 Material Transfers: PROC8b
CS5 Material Transfers: PROC9
CS6 Blend Operations: PROC5

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Environmental release categories: Formulation of mixtures (ERC2)

Product features (article)
Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use
Amounts used: Annual amount per site 2500 t
Release Type: Continuous release
Issue days: 300 days/year
Further environmental conditions:
Wet formulation
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Measures and technical-organizational conditions
Control measures to prevent releases:
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Conditions and measures for the municipal sewage treatment plant
Type of sewage treatment plant (STP): Municipal STP
STP effluent (m^3/day): 8640

Conditions and measures for waste treatment (including the product waste)
Waste treatment: Do not spread industrial sludge on natural soils.

Other operational conditions affecting environmental exposure
Local seawater dilution factor: 100
Local fresh water dilution factor: 11
Flow rate of receiving surface water: 86400
Indoor use

2.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Process categories: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Product features (article)
Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure
Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions
Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment:
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency of: 95 %

Other operational conditions affecting worker exposure
Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.
Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.3. CS3 Worker Contributing Scenario: 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
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure
Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions
Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification
Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure
Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.4. CS4 orker Contributing Scenario: 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
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 97%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Process categories: Transfer of a substance or preparation (filling/emptying) (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.6. CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
sea water	1,025 kg/day	ECETOC TRA environment v2.0	0.81

3.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	4,258 mg/m³	ECETOC TRA worker v2.0	0.212

3.3. CS3 Worker Contributing Scenario: Material Transfers (PROC8a)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

3.4. CS4 orker Contributing Scenario: Material Transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	2,129 mg/m³	ECETOC TRA worker v2.0	0.106
by inhalation, systemic, short-term	2,129 mg/m³	ECETOC TRA worker v2.0	0.106

3.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353

3.6.CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353

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.

ES2 Formulation or repackaging - PROFESSIONAL USES

1. TITLE SECTION

Exposure scenario name: Preparation and repackaging of substances and mixtures
Date - Version: 10/03/2020 - 1.0
Life cycle stage: Formulation or repackaging
Main user group: Professional uses
Sector(s) of use: Manufacture of bulk, large scale chemicals (including petroleum products) (SU8) - Formulation [mixing] of preparations and/or re-packaging (SU10) - Professional uses (SU22)

Contributing scenario - Environment

CS1 Wet formulation: ERC2

Contributing scenario - Worker

CS2 Use in closed systems: PROC3
CS3 Material Transfers: PROC8a
CS3 Material Transfers: PROC8b
CS3 Material Transfers: PROC9
CS6 Blend Operations: PROC5

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.2. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Environmental release categories: Formulation of mixtures (ERC2)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use

Amounts used: Annual amount per site 2500 t
Release Type: Continuous release
Issue days: 300 days/year
Further environmental conditions:
Wet formulation
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Measures and technical-organizational conditions

Control measures to prevent releases:
Air - minimum efficiency of: 0.25 %
Ground - minimum efficiency of: 0.01 %
Water - minimum efficiency of: 0.5 %

Conditions and measures for the municipal sewage treatment plant

Type of sewage treatment plant (STP): Municipal STP
STP effluent (m^3/day): 8640

Conditions and measures for waste treatment (including the product waste)

Waste treatment: Do not spread industrial sludge on natural soils.

Other operational conditions affecting environmental exposure

Local seawater dilution factor: 100
Local fresh water dilution factor: 11
Flow rate of receiving surface water: 86400
Indoor use

2.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Process categories: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 480 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 95 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.3. CS3 Worker Contributing Scenario: 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
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure.

2.4. CS4 orker Contributing Scenario: 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
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Process categories: Transfer of a substance or preparation (filling/emptying) (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

2.6. CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 1.57 Pa

Amount used, frequency and duration of use/exposure

Duration: 60 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Technical organizational measures: For further data, see section 8 of the safety data sheet.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum efficiency of: 98 %

Other operational conditions affecting worker exposure

Indoor use
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Palm of a hand. Possible skin contact is believed to be limited to the hands.

Learn more about good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Wear waterproof clothing. Ensure regular inspection, cleaning and maintenance of machines and systems. Wear a suitable apron to avoid skin exposure. Wear suitable face protection.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1 Environment Contributing Scenario: Wet Formulation (ERC2)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
sea water	1,025 kg/day	ECETOC TRA environment v2.0	0.81

3.2. CS2 Worker Contributing Scenario: Use in Closed Systems (PROC3)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	8,515 mg/m³	ECETOC TRA worker v2.0	0.424

3.3. CS3 Worker Contributing Scenario: Material Transfers (PROC8a)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m³	ECETOC TRA worker v2.0	0.353

3.4. CS4 orker Contributing Scenario: Material Transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

3.5. CS5 Worker Contributing Scenario: Material Transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

3.6. CS6 Worker Contributing Scenario: Mixing Operations (PROC5)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, local, short-term	14,192 mg/m³	ECETOC TRA worker v2.0	0.706

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.

Amines, polyethylenepoly-, triethylenetetramine fraction

Substance identification
Chemical Name: Amines, polyethylenepoly-, triethylenetetramine fraction
CAS number: 90640-67-8

INDUSTRIAL APPLICATION OF COATINGS AND PAINTS - INDUSTRIAL USE

1. TITLE SECTION

Exposure scenario name: Industrial application of coatings and paints
Date - Version: 15/07/2020 - 1.0
Life cycle stage: Use at industrial sites
Main user group: Industrial uses
Sector(s) of use: Industrial uses (SU3)

Contributing scenario - Environment
CS1 Wet polymerization: ERC4

Contributing scenario - Worker
CS2 Blend Operations: PROC5
CS3 Spraying: PROC7
CS4 Material Transfers: PROC8a
CS5 Material Transfers: PROC8b
CS6 Material Transfers: PROC9
CS7 Roller and brush application: PROC10

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC4)

Environmental release categories: Use of non-reactive processing aid at industrial site (no inclusion into or onto article). (ERC4)

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

Amount used, frequency and duration of use
Amounts used: Daily quantity per site 2114 kg/day
Release Type: Continuous release
Issue days: 220 days a year

Measures and technical-organizational conditions
Control measures to prevent releases: No specific measures identified.

Other operational conditions affecting environmental exposure
Local fresh water dilution factor: 1000

2.2. CS2 Contributing Scenario - Worker: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Includes use up to 60 min.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.3. CS3 Contributing Scenario - Worker: Spray (PROC7)

Process categories: Industrial spray application (PROC7)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 15%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 95% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.4. CS4 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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 25%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.5. CS5 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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 25%.

Amount used, frequency and duration of use/exposure

Duration:. Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.6 Contributing Scenario CS6 - Worker: Material transfers (PROC9)

Process categories: Transfer of a substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 15%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.7 CS7 Contributing Scenario - Worker: Roller and brush application (PROC10)

Process categories: Roller and brush application (PROC10)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 15%.

Amount used, frequency and duration of use/exposure

Duration: Includes use up to 60 min.
Additional conditions for human health: Limit the amount of substance in the product to 0.5%

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC4)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	0.00317 mg/l	EUSES	0.017
fresh water sediment	1.6 mg/kg bw/day	EUSES	0.017
sea water	0.00042 mg/l	EUSES	0.008
Marine sediment	0.212 mg/kg bw/day	EUSES	0.008
ground	0.114 mg/kg bw/day	EUSES	0.006

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)
skin contact, systemic, long-term	0.68 mg/kg bw/day	N.d.	0.12
by inhalation, systemic, long-term	0.365 mg/m³	N.d.	0.366
by inhalation, systemic, short-term	0.731 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.486

3.3. CS3 Contributing Scenario - Worker: Spray (PROC7)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.128 mg/kg bw/day	N.d.	0.226
by inhalation, systemic, long-term	0.457 mg/m³	N.d.	0.457
by inhalation, systemic, short-term	0.914 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.683

3.4. CS4 Contributing Scenario - Worker: Material transfers (PROC8a)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.041 mg/kg bw/day	N.d.	0.072
by inhalation, systemic, long-term	0.548 mg/m³	N.d.	0.548
by inhalation, systemic, short-term	1,097 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.621

3.5. CS5 Contributing Scenario - Worker: Material transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.034 mg/kg bw/day	N.d.	0.06
by inhalation, systemic, long-term	0.548 mg/m³	N.d.	0.548
by inhalation, systemic, short-term	1.096 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.609

3.6. Contributing Scenario CS6 - Worker: Material transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.068 mg/kg bw/day	N.d.	0.12
by inhalation, systemic, long-term	0.365 mg/m³	N.d.	0.366
by inhalation, systemic, short-term	1.22 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.706

3.7. CS7 Contributing Scenario - Worker: Roller and brush application (PROC10)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.082 mg/kg bw/day	N.d.	0.144
by inhalation, systemic, long-term	0.457 mg/m³	N.d.	0.229
by inhalation, systemic, short-term	0.914 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.373

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.

USE IN RIGID FOAM, COATINGS, ADHESIVES AND SEALANTS - INDUSTRIAL USE

1. TITLE SECTION

Exposure scenario name: Use in rigid foam, coatings, adhesives and sealants
Date - Version: 03/18/2020 - 1.0
Life cycle stage: Use at industrial sites
Main user group: Industrial uses
Sector(s) of use: Industrial uses (SU3)

Contributing scenario - Environment

CS1 Wet polymerization: ERC4

Contributing scenario - Worker

CS2 Blend Operations: PROC5
CS3 Spraying: PROC7
CS4 Material Transfers: PROC8a
CS5 Material Transfers: PROC8b
CS6 Material Transfers: PROC9
CS7 Roller and brush application: PROC10

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC4)

Environmental release categories: Use of non-reactive processing aid at industrial site (no inclusion into or onto article). (ERC4)

Product features (article)

Physical form of the product: Liquid

Amount used, frequency and duration of use

Amounts used: Daily quantity per site 2114 kg/day
Release Type: Continuous release
Issue days: 220 days a year

Measures and technical-organizational conditions

Control measures to prevent releases: No specific measures identified.

Other operational conditions affecting environmental exposure

Local fresh water dilution factor: 1000

2.2. CS2 Contributing Scenario - Worker: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Includes use up to 60 min.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.3. CS3 Contributing Scenario - Worker: Spray (PROC7)

Process categories: Industrial spray application (PROC7)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 15%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 95% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.4. CS4 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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 25%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.5. CS5 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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 25%.

Amount used, frequency and duration of use/exposure

Duration:. Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.6. Contributing Scenario CS6 - Worker: Material transfers (PROC9)

Process categories: Transfer of a substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 15%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.7. CS7 Contributing Scenario - Worker: Roller and brush application (PROC10)

Process categories: Roller and brush application (PROC10)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 5%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.
Additional conditions for human health: Limit the amount of substance in the product to 0.5%

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: -Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC4)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	0.00317 mg/l	EUSES	0.017
fresh water sediment	1.6 mg/kg bw/day	EUSES	0.017
sea water	0.00042 mg/l	EUSES	0.008
Marine sediment	0.212 mg/kg bw/day	EUSES	0.008
ground	0.114 mg/kg bw/day	EUSES	0.006

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)
skin contact, systemic, long-term	0.68 mg/kg bw/day	N.d.	0.12
by inhalation, systemic, long-term	0.365 mg/m³	N.d.	0.366
by inhalation, systemic, short-term	0.731 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.486

3.3. CS3 Contributing Scenario - Worker: Spray (PROC7)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.128 mg/kg bw/day	N.d.	0.226
by inhalation, systemic, long-term	0.457 mg/m³	N.d.	0.457
by inhalation, systemic, short-term	0.914 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.683

3.4. CS4 Contributing Scenario - Worker: Material transfers (PROC8a)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.041 mg/kg bw/day	N.d.	0.072
by inhalation, systemic, long-term	0.548 mg/m³	N.d.	0.548
by inhalation, systemic, short-term	1.097 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.621

3.5. CS5 Contributing Scenario - Worker: Material transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.034 mg/kg bw/day	N.d.	0.06
by inhalation, systemic, long-term	0.548 mg/m³	N.d.	0.548
by inhalation, systemic, short-term	1.096 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.609

3.6. Contributing Scenario CS6 - Worker: Material transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.068 mg/kg bw/day	N.d.	0.12
by inhalation, systemic, long-term	0.365 mg/m³	N.d.	0.366
by inhalation, systemic, short-term	1.22mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.706

3.7. CS7 Contributing Scenario - Worker: Roller and brush application (PROC10)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.082 mg/kg bw/day	N.d.	0.144
by inhalation, systemic, long-term	0.457 mg/m³	N.d.	0.229
by inhalation, systemic, short-term	0.914 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.373

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.

- INDUSTRIAL APPLICATION OF COATINGS AND PAINTS - PROFESSIONAL USE

1. TITLE SECTION

Exposure scenario name: Industrial application of coatings and paints
Date - Version: 03/18/2020 - 1.0
Life cycle stage: Generalized use by professional operators
Main user group: Professional uses
Sector(s) of use: Professional uses (SU22)

Contributing scenario - Environment

CS1 Wet polymerization: ERC8a - ERC8d

Contributing scenario - Worker

CS2 Blend Operations: PROC5
CS3 Material Transfers: PROC8a
CS4 Material Transfers: PROC8b
CS5 Material Transfers: PROC9
CS6 Roller and brush application: PROC10

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC4)

Environmental release categories: Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor). (ERC8a, ERC8d)

Product features (article)

Physical form of the product: Liquid

Amount used, frequency and duration of use

Amounts used: Daily quantity per site 15500kg/day
Release Type: Continuous release
Issue days: 300 days/year

Measures and technical-organizational conditions

Control measures to prevent releases: Preventive treatment of wastewater by neutralization. No other specific measures identified.

Other operational conditions affecting environmental exposure

Local fresh water dilution factor: 1000

2.2. CS2 Contributing Scenario - Worker: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Includes use up to 60 min.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Includes use up to 15 min.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Inhalation - minimum 95% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/exposure

Duration:. Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.5. CS5 Contributing Scenario - Worker: Material transfers (PROC9)

Process categories: Transfer of a substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 25%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.6. Contributing Scenario CS6 - Worker: Roller and brush application (PROC10)

Process categories: Roller and brush application (PROC10)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 5%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.
Additional conditions for human health: Limit the amount of substance in the product to 2%

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC8a, ERC8d)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	0.0037 mg/l	EUSES	N.d.
fresh water sediment	1.6 mg/kg bw/day	EUSES	N.d.
sea water	0.00042 mg/l	EUSES	N.d.
Marine sediment	0.212 mg/kg bw/day	EUSES	N.d.
ground	0.114 mg/kg bw/day	EUSES	N.d.

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)
skin contact, systemic, long-term	0.68 mg/kg bw/day	N.d.	0.12
by inhalation, systemic, long-term	0.365 mg/m³	N.d.	0.366
by inhalation, systemic, short-term	0.731 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.486

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)
skin contact, systemic, long-term	0.09 mg/kg bw/day	N.d.	0.15
by inhalation, systemic, long-term	0.61 mg/m³	N.d.	0.609
by inhalation, systemic, short-term	1.22mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.76

3.4. CS4 Contributing Scenario - Worker: Material transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.14 mg/kg bw/day	N.d.	0.248
by inhalation, systemic, long-term	0.76 mg/m³	N.d.	0.076
by inhalation, systemic, short-term	1.52 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.324

3.5. CS5 Contributing Scenario - Worker: Material transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.14 mg/kg bw/day	N.d.	0.248
by inhalation, systemic, long-term	0.76 mg/m³	N.d.	0.076
by inhalation, systemic, short-term	1.52 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.324

3.6. Contributing Scenario CS6 - Worker: Roller and brush application (PROC10)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.14 mg/kg bw/day	N.d.	0.248
by inhalation, systemic, long-term	0.76 mg/m³	N.d.	0.076
by inhalation, systemic, short-term	0.243 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.498

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.

USE IN RIGID FOAM, COATINGS, ADHESIVES AND SEALANTS - PROFESSIONAL USE

1. TITLE SECTION

Exposure scenario name: Industrial application of coatings and paints
Date - Version: 03/18/2020 - 1.0
Life cycle stage: Use in rigid foam, coatings, adhesives and sealants
Main user group: Professional uses
Sector(s) of use: Professional uses (SU22)

Contributing scenario - Environment

CS1 Wet polymerization: ERC8a - ERC8d

Contributing scenario - Worker

CS2 Blend Operations: PROC5
CS3 Material Transfers: PROC8a
CS4 Material Transfers: PROC8b
CS5 Material Transfers: PROC9
CS6 Roller and brush application: PROC10

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC4)

Environmental release categories: Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor). (ERC8a, ERC8d)

Product features (article)

Physical form of the product: Liquid

Amount used, frequency and duration of use

Amounts used: Daily quantity per site 15500kg/day
Release Type: Continuous release
Issue days: 300 days/year

Measures and technical-organizational conditions

Control measures to prevent releases: Preventive treatment of wastewater by neutralization. No other specific measures identified.

Other operational conditions affecting environmental exposure

Local fresh water dilution factor: 1000

2.2. CS2 Contributing Scenario - Worker: Mixing Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Includes use up to 60 min.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Includes use up to 15 min.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Inhalation - minimum 95% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

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
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 0.5 %

Amount used, frequency and duration of use/exposure

Duration:. Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: No specific measures identified.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.5. CS5 Contributing Scenario - Worker: Material transfers (PROC9)

Process categories: Transfer of a substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

2.6. Contributing Scenario CS6 - Worker: Roller and brush application (PROC10)

Process categories: Roller and brush application (PROC10)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: < 500Pa
Concentration of the substance in the product: Includes concentrations up to 5%.

Amount used, frequency and duration of use/exposure

Duration: Covers up to 8 hours of daily exposure.

Measures and technical-organizational conditions

Technical organizational measures: Provide supplementary ventilation to points where emissions occur. Inhalation - minimum 90% efficiency.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment: Wear suitable gloves, tested according to EN347. Dermal - minimum 90% efficiency. Wear suitable respiratory protection.
Additional conditions for human health: Assumes a good basic standard of occupational hygiene is implemented.

Other operational conditions affecting worker exposure

Indoor use

Further information on good practices. The requirements set out in the REACH Regulation Article 37(4) do not apply.

Further information on good practices: Supervise the implementation of risk management measures and compliance with the required operational conditions.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC8a, ERC8d)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	0.0037 mg/l	EUSES	N.d.
fresh water sediment	1.6 mg/kg bw/day	EUSES	N.d.
sea water	0.00042 mg/l	EUSES	N.d.
Marine sediment	0.212 mg/kg bw/day	EUSES	N.d.
ground	0.114 mg/kg bw/day	EUSES	N.d.

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)
skin contact, systemic, long-term	0.68 mg/kg bw/day	N.d.	0.12
by inhalation, systemic, long-term	0.365 mg/m³	N.d.	0.366
by inhalation, systemic, short-term	0.731 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.486

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)
skin contact, systemic, long-term	0.09 mg/kg bw/day	N.d.	0.15
by inhalation, systemic, long-term	0.61 mg/m³	N.d.	0.609
by inhalation, systemic, short-term	1.22mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.76

3.4. CS4 Contributing Scenario - Worker: Material transfers (PROC8b)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.14 mg/kg bw/day	N.d.	0.248
by inhalation, systemic, long-term	0.76 mg/m³	N.d.	0.076
by inhalation, systemic, short-term	1.52 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.324

3.5. CS5 Contributing Scenario - Worker: Material transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.14 mg/kg bw/day	N.d.	0.248
by inhalation, systemic, long-term	0.76 mg/m³	N.d.	0.076
by inhalation, systemic, short-term	1.52 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.324

3.6. Contributing Scenario CS6 - Worker: Roller and brush application (PROC10)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
skin contact, systemic, long-term	0.14 mg/kg bw/day	N.d.	0.248
by inhalation, systemic, long-term	0.76 mg/m³	N.d.	0.076
by inhalation, systemic, short-term	1.52 mg/m³	N.d.	<0.001
combined routes, systemic, long-term	N.d.	N.d.	0.373

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.

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine

Substance identification
Chemical Name: Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine
CAS number: 68082-29-1

USE AT INDUSTRIAL USES

1. TITLE SECTION

Exposure scenario name: Industrial production of varnishes and enamels - Industrial application of coatings and paints - Use in rigid foam, coatings, adhesives and sealants - Use in composite and foundry materials
Date - Version: 03/12/2020 - 1.0
Life cycle stage: Use at industrial sites
Main user group: Industrial uses
Sector(s) of use: Industrial uses (SU3)

Contributing scenario - Environment
CS1 Wet polymerization: ERC5

Contributing scenario - Worker
CS2 Hardening: PROC4
CS3 Spraying - Dermal Exposure Assessment: PROC7
CS4 Spraying - Dermal Exposure Assessment: PROC7
CS5 Material transfers: PROC8b
CS6 Material Transfers: PROC9

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. CS1 Environment Contributing Scenario: Wet Polymerization (ERC5)

Environmental release categories: Industrial use leading to inclusion into/onto an article (ERC5)

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

Amount used, frequency and duration of use
Amounts used: Daily quantity per site 3.33 tons/day - Yearly amount per site 999 tons/year
Release Type: Continuous release
Issue days: 300 days/year

Conditions and measures for the municipal sewage treatment plant
Type of sewage treatment plant (STP): Municipal STP - Water: minimum efficiency of 91.34%
STP effluent (m^3/day): 2000

Conditions and measures for waste treatment (including the 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. Contributing Scenario CS2 - Worker: Curing (PROC4)

Process categories: Chemical production where opportunity for exposure arises (PROC4)

Product features (article)

Physical form of the product: Liquid
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Covers a daily exposure up to 8 hours.

Measures and technical-organizational conditions

Technical organizational measures:
Provide a good standard of general ventilation (up to 3 air changes per hour).
Ensure personnel are trained to minimize exposure.
Dermal - minimum efficiency 90%
Inhalation - minimum efficiency 90%

Conditions and measures for personal protection, hygiene and health verification

Personal protective equipment:
Wear an appropriate apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency 95%

Other operational conditions affecting worker exposure

Indoor use
Temperature: A process temperature of up to 40°C is assumed
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Possible skin contact is believed to be limited to the hands.

2.3. Contributing Scenario CS3 - Spraying: Dermal Exposure Assessment (PROC7)

Process categories: Industrial spray application (PROC7)

Product features (article)

Physical form of the product: Liquid
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Covers a daily exposure up to 8 hours.

Measures and technical-organizational conditions

Technical organizational measures:
Provide a good standard of general ventilation (up to 3 air changes per hour).
Ensure personnel are trained to minimize exposure.
Dermal - minimum efficiency 95%
Inhalation - minimum efficiency 90%

Conditions and measures for personal protection, hygiene and health verification

Personal protective equipment:
Wear an appropriate apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency 95%

Other operational conditions affecting worker exposure

Indoor use
Temperature: A process temperature of up to 40°C is assumed
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Possible skin contact is believed to be limited to the hands and forearms.

2.4. Contributing Scenario CS4 - Spraying: Inhalation Exposure Assessment (PROC7)

Process categories: Industrial spray application (PROC7)

Product features (article)

Physical form of the product: Liquid
Vapor pressure: 7.9E-08 Pa
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: For each application, avoid using for a duration exceeding 480 min.

Conditions and measures for personal protection, hygiene and health verification

Personal protective equipment: Wear suitable respiratory protection. Inhalation - minimum efficiency 95%

Other operational conditions affecting worker exposure

Indoor use
Room size: Covers use in a room size of 300m².
Temperature: Includes use at room temperature.
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Possible skin contact is believed to be limited to the hands and forearms.
Additional conditions for human health: Moderate amount used (0.3-3 l/minute)

Learn more about good practices. The obligations set out in the REACH Regulation in Article 37(4) do not apply.

Further information on good practices: Use a splash guard. For further data, see section 8 of the safety data sheet. Wear suitable respiratory protection.

2.5. Contributing Scenario CS5 - 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: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Covers a daily exposure up to 8 hours.

Measures and technical-organizational conditions

Technical organizational measures:
Provide a good standard of general ventilation (up to 3 air changes per hour).
Ensure personnel are trained to minimize exposure.
Dermal - minimum efficiency 95%
Inhalation - minimum efficiency 95%

Conditions and measures for personal protection, hygiene and health verification

Personal protective equipment:
Wear an appropriate apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency 95 %

Other operational conditions affecting worker exposure

Indoor use
Temperature: A process temperature of up to 40°C is assumed
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Possible skin contact is believed to be limited to the hands and forearms.

2.6. Contributing Scenario CS6 - Worker: Material Transfers (PROC9)

Process categories: Transfer of a substance or preparation (filling/emptying) (dedicated filling line, including weighing) (PROC9)

Product features (article)

Physical form of the product: Liquid
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Covers a daily exposure up to 8 hours.

Measures and technical-organizational conditions

Technical organizational measures:
Provide a good standard of general ventilation (up to 3 air changes per hour).
Ensure personnel are trained to minimize exposure.
Dermal - minimum efficiency 90%
Inhalation - minimum efficiency 90%

Conditions and measures for personal protection, hygiene and health verification

Personal protective equipment:
Wear an appropriate apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency 95 %

Other operational conditions affecting worker exposure

Indoor use
Temperature: A process temperature of up to 40°C is assumed
Ventilation Rate: Provide a basic level of general ventilation (1 to 3 air changes per hour). 90%
Body parts exposed: Possible skin contact is believed to be limited to the hands.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1 Environment Contributing Scenario: Wet Polymerization (ERC5)

Release route	Release rate	Release evaluation method
Water	0.666 kg/day	spERC
Air	8.325 kg/day	spERC
Ground	0.01 %	spERC

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	0.001 mg/l	N.d.	0.279
fresh water sediment	121.3 mg/kg dry weight	N.d.	0.279
sea water	0.0001251 mg/l	N.d.	0.288
Marine sediment	12.51 mg/kg dry weight	N.d.	0.288
agricultural land	7.992 mg/kg dry weight	N.d.	0.292
environmentally exposed people - Inhalation	0.002 mg/m³	N.d.	< 0.01
environmentally exposed people - Oral	208.8 mg/kg bw/day	N.d.	372.8
All ways	N.d.	N.d.	372.8

3.2. Contributing Scenario CS2 - Worker: Curing (PROC4)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.17 mg/m³	ECETOC TRA worker v2.0	0.044
skin contact, systemic, long-term	0.009 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.051

3.3. Contributing Scenario CS3 - Spraying: Dermal Exposure Assessment (PROC7)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.21 mg/m³	ECETOC TRA worker v2.0	0.054
skin contact, systemic, long-term	0.027 mg/kg bw/day	ECETOC TRA worker v2.0	0.024
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.078

3.4. Contributing Scenario CS4 - Spraying: Inhalation Exposure Assessment (PROC7)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.21 mg/m³	ECETOC TRA worker v2.0	0.054
skin contact, systemic, long-term	0.027 mg/kg bw/day	ECETOC TRA worker v2.0	0.024
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.078

3.5. Contributing Scenario CS5 - 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	0.085 mg/m³	ECETOC TRA worker v2.0	0.022
skin contact, systemic, long-term	0.009 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.03

3.6. Contributing Scenario CS6 - Worker: Material Transfers (PROC9)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.17 mg/m³	ECETOC TRA worker v2.0	0.044
skin contact, systemic, long-term	0.009 mg/kg bw/day	ECETOC TRA worker v2.0	0.008
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.051

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.

GENERALIZED USE BY PROFESSIONAL OPERATORS

1. TITLE SECTION

Exposure scenario name: Industrial production of varnishes and enamels - Industrial application of coatings and paints - Use in rigid foam, coatings, adhesives and sealants - Use in composite and foundry materials
Date - Version: 03/12/2020 - 1.0
Life cycle stage: Use at industrial sites
Main user group: Generalized use by professional traders
Sector(s) of use: Professional uses (SU22)

Contributing scenario - Environment

CS1 Wet polymerization: ERC8C

Contributing scenario - Worker

CS2 Blend Operations: PROC5
CS3 Material Transfers: PROC8b
CS4 Material Transfers: PROC9

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. CS1 Environment Contributing Scenario: Wet Polymerization (ERC8c)

Environmental release categories: Widespread use resulting in an inclusion into or onto the surface of an article (indoor use) (ERC8c)

Product features (article)

Physical form of the product: Liquid

Amount used, frequency and duration of use

Amounts used: Daily quantity at site 0.0005494 tons/day

Conditions and measures for the municipal sewage treatment plant

Type of sewage treatment plant (STP): Municipal STP - Water: minimum efficiency of 91.34%
STP effluent (m^3/day): 2000

Conditions and measures for waste treatment (including the 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. Contributing Scenario CS2 - Worker: Blending Operations (PROC5)

Process categories: Mixing or Blending in Batch Processes (PROC5)

Product features (article)

Physical form of the product: Liquid
Concentration of the substance in the product: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure

Duration: Covers a daily exposure up to 4 hours.

Measures and technical-organizational conditions

Technical organizational measures:
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Ensure personnel are trained to minimize exposure.

Conditions and measures for personal protection, hygiene and health verification

Personal protective equipment:
Wear an appropriate apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency 95 %

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 Worker Contributing Scenario: 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: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure
Duration: Covers a daily exposure up to 4 hours.

Measures and technical-organizational conditions
Technical organizational measures:
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Ensure personnel are trained to minimize exposure.

Conditions and measures for personal protection, hygiene and health verification
Personal protective equipment:
Wear an appropriate apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency 95 %

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 and forearms.

2.4. CS4 orker Contributing Scenario: 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: Includes substance shares in the product up to 25%

Amount used, frequency and duration of use/exposure
Duration: Covers a daily exposure up to 4 hours.

Measures and technical-organizational conditions
Technical organizational measures:
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Ensure personnel are trained to minimize exposure.

Conditions and measures for personal protection, hygiene and health verification
Personal protective equipment:
Wear an appropriate apron to avoid skin exposure.
Wear suitable gloves, tested according to EN347.
Dermal - minimum efficiency 95 %

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 and forearms.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. CS1 Environment Contributing Scenario: Wet Polymerization (ERC8c)

Release route	Release rate	Release evaluation method
Water	0.008 kg/day	spERC
Air	0 %	spERC
Ground	0 %	spERC

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	7.3E-05 mg/l	N.d.	0.017
fresh water sediment	7.301 mg/kg dry weight	N.d.	0.017
sea water	1.113E-05 mg/l	N.d.	0.026
Marine sediment	1.113 mg/kg dry weight	N.d.	0.026
agricultural land	7.318 mg/kg dry weight	N.d.	0.084
environmentally exposed people - Inhalation	9.158E-07 mg/m³	N.d.	< 0.01
environmentally exposed people - Oral	190.8 mg/kg bw/day	N.d.	340.7
All ways	N.d.	N.d.	340.7

3.2. Contributing Scenario CS2 - Worker: Blending Operations (PROC5)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.714 mg/m³	ECETOC TRA worker v2.0	0.183
skin contact, systemic, long-term	0.171 mg/kg bw/day	ECETOC TRA worker v2.0	0.156
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.339

3.3. CS3 Worker Contributing Scenario: 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	0.714 mg/m³	ECETOC TRA worker v2.0	0.183
skin contact, systemic, long-term	0.171 mg/kg bw/day	ECETOC TRA worker v2.0	0.156
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.339

3.4. CS4 orker Contributing Scenario: 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	0.714 mg/m³	ECETOC TRA worker v2.0	0.183
skin contact, systemic, long-term	0.171 mg/kg bw/day	ECETOC TRA worker v2.0	0.156
combined routes, systemic, long-term	N.d.	ECETOC TRA worker v2.0	0.339

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.

Propylidynetrimethanol, propoxylated, reaction products with ammonia

Substance identification
CAS number: 39423-51-3

PROFESSIONAL USES

1. TITLE SECTION

Exposure scenario name: Professional uses.
Date - Version: 05/17/2023 - 3.0

Contributing scenario - Environment
SC1 Wide dispersive external use resulting in being included in item (Indoors) ERC8c
SC2 Wide dispersive external use resulting in being included in item (In outdoor environments) ERC8f

Contributing scenario - Worker
SC3 Mixing or blending in batch processes PROC5
SC4 Transfer of a substance or mixture (charging/discharging) at non-dedicated facilities PROC8a
SC5 Transfer of a substance or a mixture (charging/discharging) at dedicated facilities PROC8b
SC6 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC9
SC7 Application with rollers or brushes PROC10
SC8 Non-industrial spraying PROC11
SC9 Treatment of articles by dipping and pouring PROC13

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. Environmental exposure control: Wide dispersive external use resulting in being included in item (Indoors) - ERC8c

Amount used (or contained in articles), frequency and duration of use/exposure
Yearly amount used in EU: 999 tons/year
Daily amount per site: 0,547397 kg/day
Fraction of EU tonnage used in region: 0.1
Maximum allowable site tonnage (Msafe): Daily amount per site 2004,1 kg/day
Critical compartment for Msafe: The risk of environmental exposure is driven by microbes in the wastewater treatment plant.
Maximum allowable site tonnage (Msafe): Daily amount per site 7.2 kg/day
Critical compartment for Msafe: Risk from environmental exposure is driven by fresh water, freshwater sediment, marine water and marine water sediment.
Maximum allowable site tonnage (Msafe): Daily amount per site 10.9 kg/day
Critical compartment for Msafe: Risk from environmental exposure is driven by soil.
Maximum allowable site tonnage (Msafe): Daily amount per site 23924.1 kg/day
Critical compartment for Msafe: Risk from environmental exposure is determined by humans through indirect exposure (mainly from ingestion).
Days of emission: 365

Conditions and measures for the waste water treatment plant
Type of STP: Municipal wastewater treatment plant
STP effluent: 2000m³/day

Other conditions affecting environmental exposure
Water flow on the receiving surface: 18 000 m³/day
Local fresh water dilution factor: 10
Local seawater dilution factor: 100

2.2. Environmental exposure control: Wide dispersive external use resulting in being included in item (In outdoor environments) - ERC8f

Amount used (or contained in articles), frequency and duration of use/exposure
Yearly amount used in EU: 999 tons/year
Daily amount per site: 0,547397 kg/day
Fraction of EU tonnage used in region: 0.1
Maximum allowable site tonnage (Msafe): Daily amount per site 7.2 kg/day
Critical compartment for Msafe: Risk from environmental exposure is driven by fresh water, freshwater sediment, marine water and marine water sediment.
Maximum allowable site tonnage (Msafe): Daily amount per site 15.4 kg/day
Critical compartment for Msafe: Risk from environmental exposure is driven by soil.
Maximum allowable site tonnage (Msafe): Daily amount per site 23924.1 kg/day
Critical compartment for Msafe: Risk from environmental exposure is determined by humans through indirect exposure (mainly from ingestion).
Days of emission: 365

Conditions and measures for the waste water treatment plant
Type of STP: none

Other conditions affecting environmental exposure
Water flow on the receiving surface: 18 000 m³/day
Local fresh water dilution factor: 10
Local seawater dilution factor: 100

2.3. Worker Exposure Control: Mixing or blending in batch processes - PROC5

Product features (article)
Physical form of the product: Liquid blend
Vapour pressure: 0.0023 Pa
Temperature: 20°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Frequency and duration of use 480 min
Frequency of use: 5 days/week

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation - minimum yield of 80%.
Provide a good standard of general ventilation (3 to 5 air changes per hour).
Inhalation - minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear suitable respirator.
Inhalation - minimum yield of 95 %
Wear chemically resistant gloves in combination with employee training. (EN374)
Dermal - minimum efficiency of 80%.

Other conditions affecting worker exposure
Body parts exposed: Palms 480 cm²
Indoor and outdoor use: Inside.
Industrial or professional environments: Professional use.
Temperature: 20 °C

2.4. Worker Exposure Control: Transfer of a substance or mixture (charging/discharging) at non-dedicated facilities - PROC8a

Product features (article)
Physical form of the product: Liquid blend
Vapour pressure: 0.0023 Pa
Temperature: 20°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Frequency and duration of use 240 min
Frequency of use: 5 days/week

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation - minimum yield of 80%.
Provide a good standard of general ventilation (3 to 5 air changes per hour).
Inhalation - minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear suitable respirator.
Inhalation - minimum yield of 90 %
Wear chemically resistant gloves in combination with employee training. (EN374)
Dermal - minimum efficiency of 80%.

Other conditions affecting worker exposure
Body parts exposed: Both hands 960 cm²
Indoor and outdoor use: Inside.
Industrial or professional environments: Professional use.
Temperature: 20 °C

2.5. Worker Exposure Control: Transfer of a substance or a mixture (charging/discharging) at dedicated facilities - PROC8b

Product features (article)
Physical form of the product: Liquid blend
Vapour pressure: 0.0023 Pa
Temperature: 20°C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Frequency and duration of use 240 min
Frequency of use: 5 days/week

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation - minimum yield of 90 %
Provide a good standard of general ventilation (3 to 5 air changes per hour).
Inhalation - minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear chemically resistant gloves (EN374)
Dermal - minimum efficiency of 80%.

Other conditions affecting worker exposure
Body parts exposed: Both hands 960 cm²
Indoor and outdoor use: Inside.
Industrial or professional environments: Professional use.
Temperature: 20 °C

2.6. Worker Exposure Control: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - PROC9

Product features (article)
Physical form of the product: Liquid blend
Vapour pressure: 0.0023 Pa
Temperature: 20 °C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Frequency and duration of use 240 min
Frequency of use: 5 days/week

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation - minimum yield of 90 %
Provide a good standard of general ventilation (3 to 5 air changes per hour).
Inhalation - minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear suitable respirator.
Inhalation - minimum yield of 90 %

Other conditions affecting worker exposure
Body parts exposed: Palms 480 cm²
Indoor and outdoor use: Inside.
Industrial or professional environments: Professional use.
Temperature: 20 °C

2.7. Worker Exposure Control: Application with rollers or brushes - PROC10

Product features (article)
Physical form of the product: Liquid blend
Vapour pressure: 0.0023 Pa
Temperature: 20 °C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Frequency and duration of use 480 min
Frequency of use: 5 days/week

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation - minimum yield of 80%.
Provide a good standard of general ventilation (3 to 5 air changes per hour).
Inhalation - minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear suitable respirator.
Inhalation - minimum yield of 95 %
Wear chemically resistant gloves in combination with employee training. (EN374)
Dermal - minimum efficiency of 80%.

Other conditions affecting worker exposure
Body parts exposed: Both hands 960 cm²
Indoor and outdoor use: Inside.
Industrial or professional environments: Professional use.
Temperature: 20 °C

2.9. Worker Exposure Control: Treatment of articles by dipping and pouring - PROC13

Product features (article)
Covers percentage substance in the product up to 25 %.
Physical form of the product: Liquid blend
Vapour pressure: 0.0023 Pa
Temperature: 20 °C

Amount used (or contained in articles), frequency and duration of use/exposure
Duration: Frequency and duration of use 480 min
Frequency of use: 5 days/week

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation - minimum yield of 80%.
Provide a good standard of general ventilation (3 to 5 air changes per hour).
Inhalation - minimum yield of 30%.

Conditions and measures for personal protection, hygiene and health assessment
Wear suitable respirator.
Inhalation - minimum yield of 95 %
Wear chemically resistant gloves in combination with employee training. (EN374)
Dermal - minimum efficiency of 80%.

Other conditions affecting worker exposure
Body parts exposed: Palms 480 cm²
Indoor and outdoor use: Inside.
Industrial or professional environments: Professional use.
Temperature: 20 °C

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Environmental release and exposure: Wide dispersive external use resulting in being included in item (Indoors) - ERC8c

Release route	Release rate%	Release evaluation method
Water	1	Environmental Release Category (ERC)
Air	15	Environmental Release Category (ERC)
Soil	0	Environmental Release Category (ERC)

Protection target	Estimated exposure	RCR
Sewage treatment plant	0.0027313mg/l	< 0.001
Fresh water	0.0003326mg/l	0.076
Fresh water sediments	0.0016965mg/kg dry weight	0.076
Sea water	0.0000335mg/l	0.076
marine sediments	0.0001707mg/kg dry weight	0.076
Soil	0.0000958mg/kg dry weight	0.05
Secondary poisoning	0.0002765mg/kg body weight/day	< 0.001

3.2. Environmental release and exposure: Wide dispersive external use resulting in being included in item (In outdoor environments) - ERC8f

Release route	Release rate%	Release evaluation method
Water	1	Environmental Release Category (ERC)
Air	15	Environmental Release Category (ERC)
Soil	0.5	Environmental Release Category (ERC)

Protection target	Estimated exposure	RCR
Fresh water	0.0003332mg/l	0.076
Fresh water sediments	0.0016993mg/kg dry weight	0.076
Sea water	0.0000335mg/l	0.076
marine sediments	0.000171mg/kg dry weight	0.076
Soil	0.0000677mg/kg dry weight	0.036
Secondary poisoning	0.0002769mg/kg body weight/day	< 0.001

3.3. Worker exposure: Mixing or blending in batch processes - PROC5

Exposure routes: Dermal
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.686 mg/kg body weight/day (EASY TRA v3.6)
RCR: 0.171

Exposure routes: Inhalation
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.003 mg/m³ (EASY TRA v3.6)
RCR: < 0.001

3.4. Worker exposure: Transfer of a substance or mixture (charging/discharging) at non-dedicated facilities - PROC8a

Exposure routes: Dermal
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.686 mg/kg body weight/day (EASY TRA v3.6)
RCR: 0.171

Exposure routes: Inhalation
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.004 mg/m³ (EASY TRA v3.6)
RCR: < 0.001

3.5. Worker exposure: Transfer of a substance or a mixture (charging/discharging) at dedicated facilities - PROC8b

Exposure routes: Dermal
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.686 mg/kg body weight/day (EASY TRA v3.6)
RCR: 0.171

Exposure routes: Inhalation
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.019 mg/m³ (EASY TRA v3.6)
RCR: 0.004

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

Exposure routes: Dermal
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 1.714mg/kg body weight/day (EASY TRA v3.6)
RCR: 0.429

Exposure routes: Inhalation
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.004 mg/m³ (EASY TRA v3.6)
RCR: < 0.001

3.7. Worker exposure: Application with rollers or brushes - PROC10

Exposure routes: Dermal
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 1.371 mg/kg body weight/day (EASY TRA v3.6)
RCR: 0.343

Exposure routes: Inhalation
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.003 mg/m³ (EASY TRA v3.6)
RCR: < 0.001

3.8. Worker exposure: Non-industrial spraying - PROC11

Exposure routes: Dermal
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 2.679 mg/kg body weight/day (EASY TRA v3.6)
RCR: 0.67

Exposure routes: Inhalation
Health effect: systemic
Exposure indicator: Long-term
Estimated exposure: 0.642 mg/m³ (EASY TRA v3.6)
RCR: 0.13

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.

N,N-dimethyl-1,3-diaminopropane

Substance identification
Chemical Name: N,N-dimethyl-1,3-diaminopropane
CAS number: 109-55-7

GENERALIZED USE BY PROFESSIONAL OPERATORS

1. TITLE SECTION

Exposure scenario name: Industrial application of coatings and paints
Date - Version: 17/03/2020 - 1.0
Life cycle stage: Generalized use by professional operators
Main user group: Professional uses
Sector(s) of use: Professional uses (SU22)

Contributing scenario - Environment
CS1 Wet polymerization: ERC8c

Contributing scenario - Worker
CS2 Roller and brush application: PROC10

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC8c)

Environmental release categories: Generalized use with subsequent inclusion in or on the surface of an article (indoor use) (ERC8c)

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

Amount used, frequency and duration of use
Release Type: Continuous release
Issue days: 365 days/year

Measures and technical-organizational conditions
Used sewage treatment plant.
Exhaust gas treatment with thermal oxidation.
Do not use sewage sludge with fertilizer. The sludge is disposed of or recovered.
Do not spread industrial sludge on natural soils. Aerobic biological treatment.

Conditions and measures relating to municipal sewage treatment plants
Type of sewage treatment plant (STP): Municipal STP
STP effluent (m³/day): 2000

Other operational conditions affecting environmental exposure
Local seawater dilution factor: 100
Local fresh water dilution factor: 10
Flow rate of receiving surface water: 18000 m³/day

2.2. CS2 Contributing Scenario - Worker: Roller and brush application (PROC10)

Process categories: Roller and brush application (PROC10)

Product features (article)
Physical form of the product: Liquid
Vapor pressure: 590 Pa
Concentration of the substance in the product: Includes substance shares in the product up to 5%.

Amount used, frequency and duration of use/exposure
Duration: 240 min
Frequency: 5 days/week

Measures and technical-organizational conditions

Provide supplementary ventilation to points where emissions occur. Inhalation - minimum efficiency of 80%.
Ensure that skin contact is avoided.
Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.
Avoid direct contact with the product, even with contaminated hands.
Skin contact with the substance is to be excluded.

Conditions and measures related to personal protection, hygiene and health verification

Personal protective equipment:
Wear adequate eye protection.
Wear suitable gloves, tested according to EN347.
Wear suitable respiratory protection. Inhalation - minimum efficiency of: 95 %

Other operational conditions affecting worker exposure

Indoor use
Temperature: Assumes a process temperature up to 20°C.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC8c)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
Marine sediment	19.1 kg/day	N.d.	0.001434

3.2. CS2 Contributing Scenario - Worker: Roller and brush application (PROC10)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, short-term	0.5109 mg/m³	ECETOC TRA Worker v3	0.42575

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.