

Varnostni list

ADYWOOD 2K COMP.A

Varnostni list z dne 10/09/2024 revizija 2



ODDELEK 1: Identifikacija snovi/zmesi in družbe/podjetja

1.1 Identifikator izdelka

Identifikacija pripravka:

Komercialno ime: ADYWOOD 2K COMP.A

Komercialna koda: 580

UFI: 7TK1-G0VK-V008-AK3U

1.2 Pomembne identificirane uporabe snovi ali zmesi in odsvetovane uporabe

Priporočena uporaba: Dvokomponentno lepilo za talne in stenske obloge

1.3 Podrobnosti o dobavitelju varnostnega lista

Dobavitelj FASSA Srl

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

Tel. +39 0422 7222

Fax +39 0422 887509

Odgovorni: laboratorio.spresiano@fassabortolo.it

1.4 Telefonska številka za nujne primere

112 - Center za obveščanje (na voljo 24 ur)

ODDELEK 2: Določitev nevarnosti



2.1 Razvrstitev snovi ali zmesi

Uredba (ES) št. 1272/2008 (CLP)

Skin Irrit. 2 Povzroča draženje kože.

Eye Irrit. 2 Povzroča hudo draženje oči.

Skin Sens. 1 Lahko povzroči alergijski odziv kože.

Aquatic Chronic 3 Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Nevarnosti fizikalno-kemijskih lastnosti za zdravje ljudi in za okolje:

Ni drugih tveganj

2.2 Elementi etikete

Uredba (ES) št. 1272/2008 (CLP)

Piktogrami za nevarnost in Opozorilna beseda



Pozor

Stavki o nevarnosti

H315 Povzroča draženje kože.

H317 Lahko povzroči alergijski odziv kože.

H319 Povzroča hudo draženje oči.

H412 Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Previdnostni stavki

P261 Ne vdihavati hlapov.

P264 Po uporabi temeljito umiti z veliko vodo in mila.

P280 Nadenite si zaščitne rokavice in zaščitite oči/obraz.

P333+P313 Če nastopi draženje kože ali se pojavi izpuščaj: poiščite zdravniško pomoč/oskrbo.

P362+P364 Sleči kontaminirana oblačila in jih oprati pred ponovno uporabo.

Posebne oznake:

EUH205 Vsebuje epoksidne sestavine. Lahko povzroči alergijski odziv.

Vsebuje:

oksiran, mono[(C12-14-alkiloksi)metil]
derivati

Olje iz indijskih oreščkov

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

Reakcijski produkti oligomerizacije in
alkilacije 2-fenilpropan in fenola

Posebne določbe v skladu s Prilogo XVII uredbe REACH in poznejše spremembe:

Nobeden

2.3 Druge nevarnosti

Snovi PBT, vPvB ali endokrini motilci v koncentraciji > = 0,1%:

Sestavina	Ident. št.	Količina	Lastnosti:
Reakcijski produkti oligomerizacije in alkilacije 2-fenilpropan in fenola	EINECS: 700-960-7	>=1 - <3 %	vPvB

Ni drugih tveganj

ODDELEK 3: Sestava/podatki o sestavinah

3.1 Snovi

ni znano

3.2 Zmesi

Identifikacija pripravka: ADYWOOD 2K COMP.A

Nevarne sestavine, skladno z Uredbo CLP in njeno razvrstitvijo:

Količina	Ime	Ident. št.	Razvrstitev	Registracijska številka:	Lastnosti:
≥5 - <10 %	bis-[4-(2,3-epoksi)propoksi]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 Posebne mejne koncentracije: 5% ≤ C < 100%: Skin Irrit. 2 H315 5% ≤ C < 100%: Eye Irrit. 2 H319	01-2119456619-26-xxxx	
≥1 - <3 %	etil acetat	CAS:141-78-6 EC:205-500-4 Index:607-022-00-5	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119475103-46-xxxx	
≥1 - <3 %	Reakcijski produkti oligomerizacije in alkilacije 2-fenilpropan in fenola	EC:700-960-7	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Chronic 3, H412	01-2119555274-38-xxxx	vPvB
≥1 - <3 %	oksiran, mono[(C12-14-alkiloksi)metil] derivati	CAS:68609-97-2 EC:271-846-8 Index:603-103-00-4	Skin Irrit. 2, H315; Skin Sens. 1, H317	01-2119485289-22-xxxx	
≥1 - <3 %	Olje iz indijskih oreščkov	CAS:8007-24-7 EC:700-991-6	Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318 Skin Irrit. 2, H315 Skin Sens. 1A, H317 Ocena akutne strupenosti: ATE - Oralno: 500mg/kg tt ATE - Dermalno: 1100mg/kg tt	01-2119502450-57-xxxx	

ODDELEK 4: Ukrepi za prvo pomoč

4.1 Opis ukrepov za prvo pomoč

V primeru stika s kožo:

Kontaminirana oblačila takoj slecite in jih na varen način odstranite.

V primeru stika s proizvodom in tudi v primeru suma morebitnega stika, dele telesa takoj umijte z veliko količino tekoče vode in milom.

Umijte celotno telo (tuširanje ali kopel).

V primeru stika z očmi:

V primeru stika z očmi dovolj dolgo in z odprtimi očesnimi vekami izpirajte z obilo vode, nato poiščite pomoč zdravnika oftalmologa. Poškodovano oko zaščitite.

V primeru zaužitja:

Po zaužitju ne izzivati bruhanja, takoj poiskati zdravniško pomoč in pokazati varnostni list in nalepko.

V primeru vdihavanja:

Prizadeto osebo umaknite na svež zrak in pustite počivati na toplem.

4.2 Najpomembnejši simptomi in učinki, akutni in zapozneli

Simptomi in učinki so taki, kot je pričakovano glede na nevarnosti, kar je prikazano v 2. razdelku.

4.3 Navedba kakršne koli takojšnje medicinske oskrbe in posebnega zdravljenja

V primeru nesreče ali slabega počutja takoj poiščite zdravniško pomoč (če je mogoče, pokažite navodila za uporabo ali varnostni list).

ODDELEK 5: Protipožarni ukrepi

5.1 Sredstva za gašenje

Ustrezna sredstva za gašenje:

CO₂, gasilni aparat na prah, pena, pršenje z vodo.

Sredstva za gašenje, ki se jih iz varnostnih razlogov ne sme uporabljati:

Vodni curki

5.2 Posebne nevarnosti v zvezi s snovjo ali zmesjo

Pri gorenju nastajajo težki dimni plini.

Ne vdihavati pline, ki nastanejo pri eksploziji in/ali gorenju (ogljikov monoksid in ogljikov dioksid, dušikovi oksidi).

5.3 Nasvet za gasilce

Uporabiti ustrezne dihalne naprave.

Ločeno zberite kontaminirano vodo, uporabljeno za gašenje požara. Ne je izpustiti v kanalizacijo.

Če je to varno izvedljivo, nepoškodovane vsebnike umaknite iz neposredno ogroženega območja.

ODDELEK 6: Ukrepi o nenamernih izpustih

6.1 Osebni varnostni ukrepi, zaščitna oprema in postopki v sili

Za neizučeno osebje:

Nosite osebno varovalno opremo.

Osebe umaknite na varno mesto.

Glejte v točki 7 in 8 navedene zaščitne ukrepe.

Za reševalce:

Nosite osebno varovalno opremo.

6.2 Okoljevarstveni ukrepi

Preprečite vstop v tla/podtalnico. Preprečite razlitje v površinske vode ali v kanalizacijo.

V primeru puščanja plina ali razlitja v vodne tokove, tla ali kanalizacijo obvestite pristojne organe.

6.3 Metode in materiali za zadrževanje in čiščenje

Za zbiranje primeren material: inerten vpojni materiali (npr. pesek, vermikulit).

Po pobiranju z vodo izperite območje in prizadete materiale.

Kontaminirano vodo za pranje shranite in odstranite.

6.4 Sklizevanje na druge oddelke

Glejte tudi naslova 8 in 13

ODDELEK 7: Ravnanje in skladiščenje

7.1 Varnostni ukrepi za varno ravnanje

Preprečite stik s kožo in očmi, vdihavanje hlapov in megle.

Prazne vsebnike ne uporabite dokler niso očiščeni.

Pred postopki prenosa se prepričajte, da v vsebnikih ni ostankov nezdružljivih materialov.

Nasveti o splošni higieni dela:

Kontaminirana oblačila se mora pred vstopom v jedilnico zamenjati.

Med delom ne jejte in ne pijte.

Glejte tudi naslov 8 o priporočeni varovalni opremini.

7.2 Pogoji za varno skladiščenje, vključno z nezdružljivostjo

Posode hranite tesno zaprte na hladnem in dobro prezračevanem mestu proč od virov toplote.

Hranite stran od hrane, pijač in krme.

Inkompaktibilne snovi:

Glejte točko 10.5

Navodila za prostore:

Primerno zračeni prostori.

7.3 Posebne končne uporabe

Priporočila

Glejte točko 1.2

Specifične rešitve za industrijski sektor

Nobena posebna uporaba

ODDELEK 8: Nadzor izpostavljenosti/osebna zaščita

8.1 Parametri nadzora

Seznam sestavin z OEL vrednostmi

etil acetat

CAS: 141-78-6	Tip OPZ	ACGIH	Dolgotrajna 400 ppm Opombe: URT and eye irr
	Tip OPZ	EU	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	MAK Avstrija	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	MAK Nemčija	Dolgotrajna 750 mg/m ³ - 200 ppm; Kratkotrajna 1500 mg/m ³ - 400 ppm
	Tip OPZ	VLEP Belgija	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	VLEP Francija	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	VLEP Italija	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	VLEP Romunija	Dolgotrajna 400 mg/m ³ - 111 ppm; Kratkotrajna 500 mg/m ³ - 139 ppm
	Tip OPZ	TLV Bolgarija	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	TLV Češka	Dolgotrajna 700 mg/m ³ - 191.1 ppm; Kratkotrajna 900 mg/m ³ - 245.7 ppm
	Tip OPZ	VLA Španija	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1460 mg/m ³ - 400 ppm
	Tip OPZ	ÁK Madžarska	Dolgotrajna 1400 mg/m ³ ; Kratkotrajna 1400 mg/m ³
	Tip OPZ	VLE Portugalska	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	SUVA Švicar	Dolgotrajna 730 mg/m ³ - 200 ppm; Kratkotrajna 1470 mg/m ³ - 400 ppm
	Tip OPZ	WEL U.K.	Dolgotrajna 730 mg/m ³ - 200 ppm; Kratkotrajna 1460 mg/m ³ - 400 ppm
	Tip OPZ	GVI Hrvaška	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	AGW Nemčija	Dolgotrajna 730 mg/m ³ - 200 ppm; Kratkotrajna 1460 mg/m ³ - 400 ppm
	Tip OPZ	NDS Poljska	Dolgotrajna 734 mg/m ³ ; Kratkotrajna 1468 mg/m ³
	Tip OPZ	MV Slovenija	Dolgotrajna 734 mg/m ³ - 200 ppm; Kratkotrajna 1468 mg/m ³ - 400 ppm
	Tip OPZ	IPRV Litva	Dolgotrajna 500 mg/m ³ - 150 ppm; Kratkotrajna 1100 mg/m ³ - 300 ppm

Mejna vrednost izpostavljenosti po PNEC

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

CAS: 1675-54-3	Način izpostavitve: Sladka voda; PNEC Omejite: 0.006 mg/l
	Način izpostavitve: Morska voda; PNEC Omejite: 0.001 mg/l
	Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 0.341 mg/kg
	Način izpostavitve: Morski sedimenti; PNEC Omejite: 0.034 mg/kg
	Način izpostavitve: Tla (kmetijska); PNEC Omejite: 0.065 mg/kg
	Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 10 mg/l

etil acetat

CAS: 141-78-6	Način izpostavitve: Morska voda; PNEC Omejite: 0.024 mg/l
	Način izpostavitve: Sladka voda; PNEC Omejite: 0.24 mg/l
	Način izpostavitve: Morski sedimenti; PNEC Omejite: 0.115 mg/kg
	Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 1.15 mg/kg
	Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 650 mg/l
	Način izpostavitve: Tla (kmetijska); PNEC Omejite: 0.148 mg/kg

Reakcijski produkti oligomerizacije in alkilacije 2-fenilpropen in fenola

Način izpostavitve: Sladka voda; PNEC Omejite: 0.014 mg/l
Način izpostavitve: Morska voda; PNEC Omejite: 0.001 µg/l
Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 1064 mg/kg
Način izpostavitve: Morski sedimenti; PNEC Omejite: 106 mg/kg
Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 2.4 mg/l

Način izpostavitve: Tla (kmetijska); PNEC Omejite: 212.2 mg/kg

oksiran, mono[(C12-14-alkiloksi)metil] derivati

CAS: 68609-97-2 Način izpostavitve: Sladka voda; PNEC Omejite: 0.106 mg/l

Način izpostavitve: Morska voda; PNEC Omejite: 0.011 mg/l

Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 10 mg/l

Način izpostavitve: Morski sedimenti; PNEC Omejite: 30.72 mg/kg

Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 307.16 mg/kg

Način izpostavitve: Prst; PNEC Omejite: 1.234 mg/kg

Olje iz indijskih oreščkov

CAS: 8007-24-7 Način izpostavitve: Sladka voda; PNEC Omejite: 0.003 mg/l

Način izpostavitve: Morska voda; PNEC Omejite: 0.03 mg/l

Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 0.97 mg/kg

Način izpostavitve: Morski sedimenti; PNEC Omejite: 0.088 mg/kg

Način izpostavitve: Tla (kmetijska); PNEC Omejite: 6.71 mg/kg

Izpeljane vrednosti brez učinka. (DNEL)

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

CAS: 1675-54-3 Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 0.75 mg/kg; Uporabnik: 0.089 mg/kg

Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 4.93 mg/m³; Uporabnik: 0.87 mg/m³

Način izpostavitve: Oralno, človek; Pogostost izpostavitve: Kratkotrajna, sistemski učinek
Uporabnik: 0.5 mg/kg

etil acetat

CAS: 141-78-6 Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 734 mg/m³; Uporabnik: 367 mg/m³

Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, lokalni učinek
Strokovni delavec: 734 mg/m³; Uporabnik: 367 mg/m³

Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Kratkotrajna, sistemski učinek
Strokovni delavec: 1468 mg/m³; Uporabnik: 734 mg/m³

Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Kratkotrajna, lokalni učinek
Strokovni delavec: 1468 mg/m³; Uporabnik: 734 mg/m³

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 63 mg/kg; Uporabnik: 37 mg/kg

Način izpostavitve: Oralno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Uporabnik: 4.5 mg/kg

Reakcijski produkti oligomerizacije in alkilacije 2-fenilpropen in fenola

Način izpostavitve: Oralno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Uporabnik: 0.2 mg/kg

Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 1.4 mg/m³; Uporabnik: 0.35 mg/m³

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Uporabnik: 1.7 mg/kg

oksiran, mono[(C12-14-alkiloksi)metil] derivati

CAS: 68609-97-2 Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 3.6 mg/m³; Uporabnik: 0.87 mg/m³

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 1 mg/kg; Uporabnik: 0.5 mg/kg

Način izpostavitve: Oralno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Uporabnik: 0.5 mg/kg

Olje iz indijskih oreščkov

CAS: 8007-24-7 Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 0.88 mg/m³; Uporabnik: 0.2 mg/m³

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 0.5 mg/kg; Uporabnik: 0.25 mg/kg

Način izpostavitve: Oralno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Uporabnik: 0.25 mg/kg

8.2 Nadzor izpostavljenosti

Poskrbite za ustrezno prezračevanje. Kadar je to izvedljivo, je to mogoče doseči z uporabo nadomestnega prezračevanja in dobrim splošnim vsesavanjem.

Zaščita oči:

Očala s stranskimi varovali (EN 166).

Zaščita kože:

Uporabljajte oblačila, primerna za popolno zaščito kože glede na dejavnost in izpostavljenost (EN 14605/EN 13982), npr. delovni kombinezon, predpasnik, zaščitna obutev, primerna oblačila.

Zaščita rok:

Ni materiala ali kombinacije materialov za rokavice, ki bi lahko zagotovili neomejeno odpornost na katero koli kombinacijo kemikalij ali proizvodov.

Za daljše ali večkratno rokovanje uporabite rokavice, odporne na kemikalije.

Ustrezne rokavice tipa (EN 374/EN 16523); FKM (Fluórkaučuk): debelina ≥ 0.4 mm; permeacijski čas ≥ 480 min. NBR (Nitrilkaučuk): debelina ≥ 0.4 mm; permeacijski čas ≥ 480 min

Izbira primernih rokavic ni odvisna samo od materiala, temveč tudi od drugih kakovostnih lastnosti, ki se razlikujejo od enega do drugega proizvajalca, in od načinov ter časov uporabe mešanice.

Zaščita dihalnih poti:

Če so delavci izpostavljeni koncentracijam nad mejnimi vrednostmi izpostavljenosti, morajo uporabljati primerne, certificirane dihalne aparate.

Kombinirana filtrirna naprava (EN 14387): maska s filtrom A-P2.

Nadzor izpostavljenosti okolja:

Glejte točko 6.2

Higienski in tehnični ukrepi

Glejte poglavje 7.

ODDELEK 9: Fizikalne in kemijske lastnosti

9.1 Podatki o osnovnih fizikalnih in kemijskih lastnostih

Izgled: pastozna tekočina

Barva: temno rjav

Vonj: značilnost

Tališče/ledišče: N.D.

Vrelišče ali začetno vrelišče in območje vrelišča: N.D.

Vnetljivost: ni znano

Spodnja in zgornja meja eksplozivnosti: N.D.

Plamenišče: $> 60^{\circ}\text{C} / 93^{\circ}\text{C}$

Temperatura samovžiga: N.D.

Temperatura razgradnje: N.D.

pH: ni znano (Ne pride v poštev zaradi narave proizvoda)

Kinematična viskoznost: $> 20.5 \text{ mm}^2/\text{s}$ (40°C)

Gostota in/ali relativna gostota: $1,8 \text{ kg/l}$ (Interna metoda)

Relativna parna gostota: N.D.

Parni tlak: N.D.

Topnost v vodi: Se ne meša

Topnost v olju: ni znano

Porazdelitveni koeficient n-oktanol/voda (logaritemska vrednost): ni znano

Lastnosti delcev:

Velikost delcev: ni znano

9.2 Drugi podatki

Prevodnost: N.D.

Eksplozivne lastnosti: ni znano (Notranja evalvacija)

Oksidativne lastnosti: ni znano (Notranja evalvacija)

Hitrost izparevanja: ni znano

ODDELEK 10: Obstočnost in reaktivnost

10.1 Reaktivnost

Stabilna v normalnih pogojih

10.2 Kemijska stabilnost

Stabilna v normalnih pogojih

10.3 Možnost poteka nevarnih reakcij

V stiku z močnimi oksidatorji se lahko vname.

Zaradi toplote ali v primeru požara se lahko sprostijo ogljikovi oksidi in hlapi, ki lahko škodujejo zdravju.

10.4 Pogoji, ki se jim je treba izogniti

Izogibajte se bližine toplotnih virov.

10.5 Nezdružljivi materiali

Močni oksidanti, močni reduktorji, alifatski in aromatski amini.

Glejte točko 10.3

10.6 Nevarni produkti razgradnje

V primeru pravilnega skladiščenja in ravnanja ne pride do razvoja nevarnih produktov razgradnje.

Glejte točko 5.2

ODDELEK 11: Toksikološki podatki

11.1 Podatki o razredih nevarnosti, kakor so opredeljeni v Uredbi (ES) št. 1272/2008

Epoksidne smole, prisotne v tem izdelku so samo delno dražilne. Kljub temu vse epoksidne smole lahko povzročajo senzibilizacijo kože, ki je različna glede na osebo.

Pri nekaterih osebah se alergični dermatitis ne pokaže takoj in se pojavi šele po večih dneh ali tednih po pogostih ali daljših stikih.

Zaradi tega, čeprav so smole le lažje dražilne, se je treba skrbno izogibati stiku s kožo. Pri že razviti sensibilizaciji tudi izpostavljenost v manjših količinah lahko povzročajo lokalni edem ali eritem.

Toksikološki podatki izdelka:

a) akutna strupenost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
b) jedkost za kožo/draženje kože	Proizvod je razvrščen: Skin Irrit. 2(H315)
c) resne okvare oči/draženje	Proizvod je razvrščen: Eye Irrit. 2(H319)
d) preobčutljivost pri vdihavanju in preobčutljivost kože	Proizvod je razvrščen: Skin Sens. 1(H317)
e) mutagenost za zarodne celice	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
f) rakotvornost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
g) strupenost za razmnoževanje	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
h) STOT - enkratna izpostavljenost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
i) STOT - ponavljajoča se izpostavljenost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
j) nevarnost pri vdihavanju	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.

Toksikološki podatki glavnih snovi, ki jih najdemo v izdelku:

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

CAS: 1675-54-3 a) akutna strupenost LD50 Oralno Podgana > 2000 mg/kg
LD50 Koža Podgana > 2000 mg/kg

etil acetat

CAS: 141-78-6 a) akutna strupenost LD50 Oralno Podgana 4934 mg/kg
LD50 Koža Zajec > 20000 mg/kg
LC50 Vdihavanje hlapov Podgana > 22.5 mg/l 6h

Reakcijski produkti oligomerizacije in alkilacije 2-fenilpropen in fenola

a) akutna strupenost LD50 Koža Podgana > 2000 mg/kg
LD50 Oralno Podgana > 2000 mg/kg

oksiran, mono[(C12-14-alkiloksi)metil] derivati

CAS: 68609-97-2 a) akutna strupenost LC0 Vdihavanje hlapov Podgana > 0.15 mg/l 7h
LD50 Oralno Podgana > 2000 mg/kg
LD50 Koža Zajec > 4000 mg/kg

Olje iz indijskih oreščkov

CAS: 8007-24-7 a) akutna strupenost ATE - Oralno: 500 mg/kg tt
ATE - Dermalno: 1100 mg/kg tt
LD50 Koža Podgana > 2000 mg/kg
LD50 Oralno Podgana 5000 mg/kg

11.2 Podatki o drugih nevarnostih

Lastnosti endokrinih motilcev:

Ni endokrinih motilcev v koncentraciji $\geq 0,1\%$.

ODDELEK 12: Ekološki podatki

Uporabljajte v skladu z dobrimi delovnimi navadami, izogibajte se odlaganju izdelka v okolju.

12.1 Strupenost

Ekotoksikološki podatki:

Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Ekotoksikoloških lastnosti izdelka

Proizvod je razvrščen: Aquatic Chronic 3(H412)

Seznam sestavin z ekotoksikološkimi lastnostmi

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

CAS: 1675-54-3 a) akutna strupenost za vodno okolje: EC50 Vodna bolha 1.8 mg/l 48h
a) akutna strupenost za vodno okolje: LC50 Riba 2 mg/l 96h
a) akutna strupenost za vodno okolje: EC50 Alge 11 mg/l 72h
b) kronična strupenost za vodno okolje: NOEC Vodna bolha 0.3 mg/l 21d

etil acetat

CAS: 141-78-6 a) akutna strupenost za vodno okolje: LC50 Riba 230 mg/l 96h
a) akutna strupenost za vodno okolje: EC50 Vodna bolha 165 mg/l 48h

oksiran, mono[(C12-14-alkiloksi)metil] derivati

CAS: 68609-97-2 a) akutna strupenost za vodno okolje: LL50 Riba > 100 mg/l 96h
a) akutna strupenost za vodno okolje: EL50 Vodna bolha 7.2 mg/l 48h
a) akutna strupenost za vodno okolje: IC50 Alge 843.75 mg/l 72h

12.2 Obstočnost in razgradljivost

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

CAS: 1675-54-3 Ni hitro razgradljivo

etil acetat

CAS: 141-78-6 Hitro razgradljivo

oksiran, mono[(C12-14-alkiloksi)metil] derivati

CAS: 68609-97-2 Hitro razgradljivo

Olje iz indijskih oreščkov

CAS: 8007-24-7 Hitro razgradljivo

12.3 Zmožnost kopičenja v organizmih

ni znano

12.4 Mobilnost v tleh

ni znano

12.5 Rezultati ocene PBT in vPvB

Seznam sestavin z ekotoksikološkimi lastnostmi

Reakcijski produkti oligomerizacije in alkilacije 2-fenilpropen in fenola

$\geq 1 - < 3\%$ vPvB

12.6 Lastnosti endokrinih motilcev

Ni endokrinih motilcev v koncentraciji $\geq 0,1\%$.

12.7 Drugi škodljivi učinki

ni znano

ODDELEK 13: Odstranjevanje

13.1 Metode ravnanja z odpadki

Če je mogoče, predelajte. Ravnajte se po lokalnih in državnih normah.

Ne dopustite, da pride v kanalizacijo ali vodne poti.

Odstraniti posode, ki jih kontaminira izdelka v skladu z lokalnimi ali nacionalnimi predpisi.

Ko izdelku poteče življenjska doba, ga odstranite v skladu z veljavno zakonodajo.

ODDELEK 14: Podatki o prevozu

Blago ni nevarno smislu normativ o transportu.

14.1 Številka ZN in številka ID

N/A

14.2 Pravilno odpremno ime ZN

ADR-uradno ime blaga: N/A

IATA-uradno ime blaga: N/A

IMDG-uradno ime blaga: N/A

14.3 Razredi nevarnosti prevoza

ADR-Razred: N/A

IATA-razred: N/A

IMDG-razred: N/A

14.4 Skupina embalaže

ADR-embalažna skupina: N/A

IATA-embalažna skupina: N/A

IMDG-embalažna skupina: N/A

14.5 Nevarnosti za okolje

Onesnaževalec morja: Ne

Onesnažuje okolje po: Ne

IMDG-EMS: N/A

14.6 Posebni previdnostni ukrepi za uporabnika

Cestni in železniški transport (ADR-RID):

ADR izvzeto:

ADR-nalepka nevarnosti: N/A

ADR - Identifikacijska številka nevarnosti: N/A

ADR-posebni ukrepi: N/A

ADR-Pravilnik o cestnem prevozu nevarnega blaga:

Zračni transport (IATA):

IATA-potniška letala: N/A

IATA-tovorna letala: N/A

IATA-nalepka: N/A

IATA-dodatne nevarnosti: N/A

IATA-Erg: N/A

IATA-posebni ukrepi: N/A

Morski transport (IMDG):

IMDG-Zlaganje in ravnanje: N/A

IMDG-Segregacija: N/A

IMDG-dodatne nevarnosti: N/A

IMDG-posebni ukrepi: N/A

14.7 Pomorski prevoz v razsutem stanju v skladu z instrumenti IMO

ni znano

ODDELEK 15: Zakonsko predpisani podatki

15.1 Predpisi/zakonodaja o zdravju, varnosti in okolju, specifični za snov ali zmes

Dir. 98/24/ES (Varovanje delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu)

Dir. 2000/39/ES (mejne vrednosti za poklicno izpostavljenost)

Direktiva 2010/75/EU

Uredba (ES) št. 1907/2006 (REACH)

Uredba (ES) št. 1272/2008 (CLP)

Uredba (ES) št. 790/2009 (1. ATP CLP) in (EU) št. 758/2013

Uredba (EU) 2020/878

Uredba (EU) št. 286/2011 (2. ATP CLP)

Uredba (EU) št. 618/2012 (3. ATP CLP)

Uredba (EU) št. 487/2013 (4. ATP CLP)

Uredba (EU) št. 944/2013 (5. ATP CLP)

- Uredba (EU) št. 605/2014 (6. ATP CLP)
- Uredba (EU) 2015/1221 (7. ATP CLP)
- Uredba (EU) 2016/918 (8. ATP CLP)
- Uredba (EU) 2016/1179 (9. ATP CLP)
- Uredba (EU) 2017/776 (10. ATP CLP)
- Uredba (EU) 2018/669 (11. ATP CLP)
- Uredba (EU) 2018/1480 (13. ATP CLP)
- Uredba (EU) 2019/521 (12. ATP CLP)
- Uredba (EU) 2020/217 (14. ATP CLP)
- Uredba (EU) 2020/1182 (15. ATP CLP)
- Uredba (EU) 2021/643 (16. ATP CLP)
- Uredba (EU) 2021/849 (17. ATP CLP)
- Uredba (EU) 2022/692 (18. ATP CLP)

Omejitve, povezane z izdelkom ali vsebovanimi snovmi, v skladu s Prilogo XVII Uredbe (ES) 1907/2006 (REACH) in poznejše spremembe:

- Obmedzenia vo vzťahu s výrobkom: 3
- Obmedzenia vo vzťahu s obsiahnutými látkami: 40, 75

Določbe v zvezi z direktivo EU 2012/18 (Seveso III)

Nobena

Uredba (EU) št. 649/2012 (uredba PIC)

Snovi niso navedene

Nemški razred nevarnosti za vodo.

Razred 2: ogroža vodo.

SVHC snovi:

Seznam kandidatnih snovi (59.člen uredbe 1907/2006, REACH):

Sestavina	Ident. št.	Količina	Lastnosti:
Reakcijski produkti oligomerizacije in EINECS: 700-960-7 alkilacije 2-fenilpropen in fenola		>=1 - <3 %	SVHC - vPvB

15.2 Ocena kemijske varnosti

Ocena kemijske varnosti ni bila opravljena za mešanice

ODDELEK 16: Drugi podatki

Številka	Opis
EUH066	Ponavljajoča izpostavljenost lahko povzroči nastanek suhe ali razpokane kože.
H225	Lahko vnetljiva tekočina in hlapi.
H302	Zdravju škodljivo pri zaužitju.
H312	Zdravju škodljivo v stiku s kožo.
H315	Povzroča draženje kože.
H317	Lahko povzroči alergijski odziv kože.
H318	Povzroča hude poškodbe oči.
H319	Povzroča hudo draženje oči.
H336	Lahko povzroči zaspanost ali omotico.
H411	Strupeno za vodne organizme, z dolgotrajnimi učinki.
H412	Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Številka	Razred in kategorija nevarnosti	Opis
2.6/2	Flam. Liq. 2	Vnetljiva tekočina, Kategorija 2
3.1/4/Dermal	Acute Tox. 4	Akutna strupenost (dermalno), Kategorija 4
3.1/4/Oral	Acute Tox. 4	Akutna strupenost (oralno), Kategorija 4
3.2/2	Skin Irrit. 2	Draženje kože, Kategorija 2
3.3/1	Eye Dam. 1	Hude poškodbe oči, Kategorija 1
3.3/2	Eye Irrit. 2	Draženje oči, Kategorija 2
3.4.2/1	Skin Sens. 1	Preobčutljivost kože, Kategorija 1
3.4.2/1A	Skin Sens. 1A	Preobčutljivost kože, Kategorija 1A
3.4.2/1B	Skin Sens. 1B	Preobčutljivost kože, Kategorija 1B
3.8/3	STOT SE 3	Specifična strupenost za ciljne organe (STOT) – enkratna

4.1/C2	Aquatic Chronic 2	Kronično (dolgotrajno) nevarnost za vodno okolje, Kategorija 2
4.1/C3	Aquatic Chronic 3	Kronično (dolgotrajno) nevarnost za vodno okolje, Kategorija 3

Razvrstitev in postopek, uporabljen za izpeljavo razvrstitve za zmesi v skladu z Uredbo (ES) 1272/2008 [uredba CLP]:**Razvrstitev v skladu z Uredbo (ES) št. 1272/2008 Postopek razvrščanja**

Skin Irrit. 2, H315	metoda izračuna
Eye Irrit. 2, H319	metoda izračuna
Skin Sens. 1, H317	metoda izračuna
Aquatic Chronic 3, H412	metoda izračuna

Ta dokument je pripravila pristojna oseba, ki je ustrezno usposobljena

Glavni bibliografski viri:

ECDIN – Informacijska mreža za okoljske podatke za kemikalije – Skupno raziskovalno središče, Komisija Evropskih skupnosti
 SAX – NEVARNE LASTNOSTI INDUSTRIJSKIH MATERIALOV – 8. izdaja – Van Nostrand Reinold
 Varnostni listi dobaviteljev surovin.

Predstavljene informacije se nanašajo na naše znanje v zgoraj navedenem datumu. Nanašajo se zgolj na omenjeni izdelek in ne predstavljajo garancije za posebno kakovost.

Uporabnik je dolžan preveriti pravilnost in popolnost teh informacij glede na svojo specifično uporabo.

Ta list razveljavlja in nadomešča vsako predhodno izdajo

Legenda okrajšav in kratic, uporabljenih v varnostnem listu:

ACGIH: Ameriška konferenca vladnih industrijskih higienikov
 ADR: Evropski sporazum o mednarodnem prevozu nevarnih snovi v cestnem prometu.
 ATE: Ocena akutne strupenosti
 ATEmix: Ocena akutne strupenosti (Zmesi)
 BEI: Biološki indeks izpostavljenosti
 CAS: Chemical Abstracts Service (oddelek Ameriškega kemijskega društva).
 CAV: Center za zastrupitve
 CE: Evropska skupnost
 CLP: Razvrščanje, etiketiranje, pakiranje.
 CMR: Rakotvorno, mutageno in strupeno za razmnoževanje
 COV: Hlapna organska spojina
 CSA: Ocena kemijske varnosti
 CSR: Poročilo o kemijski varnosti
 DNEL: Izpeljane vrednosti brez učinka.
 EC50: Srednja učinkovita koncentracija
 ECHA: Evropska agencija za kemikalije
 EINECS: Evropski seznam obstoječih snovi.
 ES: Scenarij izpostavljenosti
 GefStoffVO: Odlok o nevarnih snoveh, Nemčija.
 GHS: Globalno poenoten sistem razvrščanja in označevanja nevarnih kemikalij.
 IARC: Mednarodna agencija za raziskovanje raka
 IATA: Mednarodno združenje za zračni transport.
 IC50: Srednja inhibitorna koncentracija
 IMDG: Mednarodni kodeks za prevoz nevarnega blaga po morju
 LC50: Letalna koncentracija za 50 odstotkov testne populacije.
 LD50: Letalna doza za 50 odstotkov testne populacije.
 LDLo: Najnižja smrtna doza
 N.A.: Se ne uporablja
 N/A: Se ne uporablja
 N/D: Ni opredeljeno/Ni razpoložljiv
 N.D.: Ni razpoložljiv
 NIOSH: Nacionalni inštitut za varnost in zdravje pri delu
 NOAEL: Raven brez opaznih negativnih vplivov
 OSHA: Upravljanje varnosti in zdravja pri delu
 PBT: Obstojne, se kopičijo v organizmih in so strupene
 PGK: Navodila za embalažo nevarnih snovi
 PNEC: Predvidena koncentracija brez učinka.
 PSG: Potniki
 RID: Pravilnik o mednarodnem prevozu nevarnega blaga po železnici.
 STEL: Meja za kratkotrajno izpostavljenost.
 STOT: Specifično strupeno za ciljne organe.

TLV: Mejna vrednost izpostavljenosti.

TLV-TWA: Mejna vrednost izpostavljenosti v časovnem obdobju po 8 ur dnevno (ACGIH standard).

vPvB: Telo obstojno, se zelo lahko kopiči v organizmih.

WGK: Nemški razred nevarnosti za vodo.

Odstavki spremenjeni od prejšnje revizije:

- ODDELEK 2: Določitev nevarnosti
- ODDELEK 3: Sestava/podatki o sestavinah
- ODDELEK 6: Ukrepi o nenamernih izpustih
- ODDELEK 8: Nadzor izpostavljenosti/osebna zaščita
- ODDELEK 9: Fizikalne in kemijske lastnosti
- ODDELEK 11: Toksikološki podatki
- ODDELEK 12: Ekološki podatki
- ODDELEK 13: Odstranjevanje
- ODDELEK 14: Podatki o prevozu
- ODDELEK 15: Zakonsko predpisani podatki
- ODDELEK 16: Drugi podatki

Ethyl acetate

Substance identification

Chemical Name: Ethyl acetate

CAS number: 141-78-6

ETHYL ACETATE

ES 1: Cosmetics, personal care products (PC39); User for consumers (SU21).
 ES 2: Filling of drums and small packages (CS6); INDUSTRIAL USES (SU3).
 ES 3: Formulation or repackaging (F); INDUSTRIAL USES (SU3).
 ES 4: Use of non-reactive processing aid at industrial site (no inclusion in article) (ERC4); Industrial uses (su3); Extraction agents (PC40).
 ES 5: PROFESSIONAL APPLICATION OF COATINGS AND INKS; INDUSTRIAL USES (SU3).
 ES 6: Use as laboratory reagent (PROC15); Industrial uses (su3); Industrial use.
 ES 7: Use in cleaning products (GEST4_I, GEST4_P, GEST4_C); INDUSTRIAL USES (SU3).
 ES 8: Use in lubricants (GEST6_I, GEST6_P, GEST6_C); INDUSTRIAL USES (SU3).
 ES 9: Professional application of coatings and inks (14); INDUSTRIAL USES (SU3). Covers use in coatings (paints, inks, adhesives, etc.) including exposures during use (receipt of material, storage, preparation and transfer of bulk and semi-bulk products, application by spray, roller or spreader, dipping, flow, fluidized bed on production lines and film formation), the cleaning and maintenance of the equipment and the associated laboratory activities [GES3_I].
 ES 10: Use as laboratory reagent (PROC15); Industrial uses (su3); Professional (G27).
 ES 11: Use in agrochemical products (GEST11_P, GEST11_C); INDUSTRIAL USES (SU3).
 ES 12: Use in detergent products (GEST4_I, GEST4_P, GEST4_C).
 ES 13: Use in lubricants (GEST6_I, GEST6_P, GEST6_C).
 ES 14: Adhesives, Sealants (PC1); Use in coatings (GEST3_I, GEST3_P, GEST3_C).

ES 5: PROFESSIONAL APPLICATION OF COATINGS AND INKS (17); INDUSTRIAL USES (SU3).

5.1. USE AT INDUSTRIAL SITES

Environment

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

Worker

SC 2: Generalized exposures (closed systems) PROC1
 SC 3: Generalized exposures (closed systems); Use in closed systems, with sample taking PROC2
 SC 4: Film formation - forced drying (50 -100°C). Stove (>100°C), Curing by UV/EB radiation PROC2
 SC 5: Mixing operations, Generalized exposures PROC3
 SC 6: Film formation, air drying PROC4
 SC 7: Preparation of material for application, Mixing operations (open systems) PROC5
 SC 8: Spraying (automatic/robotic) PROC7
 SC 9: Manual spraying PROC7
 SC 10: Material transfers, Non-Specialized site PROC8a
 SC 11: Material transfers, Specialized site PROC8b
 SC 12: Roller, diffusion, flow application PROC10
 SC 13: Immersion, dipping and pouring PROC13
 SC 14: Laboratory activities PROC15
 SC 15: Material transfers, Drum/batch transfers, Transfer from/pour from containers PROC9
 SC 16: Production or preparation of articles by tableting, compression, extrusion or pelletisation. PROC14

5.2. CONDITIONS OF USE THAT AFFECT EXPOSURE

5.2.1 Environmental exposure control: Use of non-reactive processing aid at industrial site (no inclusion in article) (ERC4)

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

Daily amount per site: ≤ 1 t/day

Annual amount per site: ≤ 300 t/year

Organizational and technical measures and conditions

A wastewater treatment plant is expected.

Assumed domestic sewage treatment plant flow: ≥ 2E3 m³/day

Conditions and measures for waste treatment (including the article of waste)

Waste treatment: Dispose of waste products or used containers according to local regulations.

Other conditions affecting environmental exposure

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

5.2.2. Worker Exposure Control: Chemical production or refinement in closed processes without likelihood of exposure or in processes with equivalent containment conditions (PROC1)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.3. Worker Exposure Control: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.4. Worker Exposure Control: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.5. Worker Exposure Control: Chemical production or formulation in closed batch processes, with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.6. Worker Exposure Control: Production of chemicals with the possibility of exposure (PROC4)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.7. Worker Exposure Control: Mixing or blending in batch processes (PROC5)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.8. Worker Exposure Control: Industrial spraying (PROC7)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 95%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.9. Worker Exposure Control: Industrial spraying (PROC7)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 95%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

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

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

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

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 95%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.12. Worker Exposure Control: Application with rollers or brushes (PROC10)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.13. Worker Exposure Control: Treatment of articles by dipping and pouring (PROC13)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.14. Worker Exposure Control: Use as laboratory reagents (PROC15)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

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

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.16. Worker Exposure Control: Tableting, compression, extrusion, pelletising, granulation (PROC14)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

5.3.1. 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	20 kg/day	Estimated release factor
air	980 kg/day	Estimated release factor
Soil	0 kg/day	Estimated release factor

Protection target	Estimated exposure	RCR
Fresh water	0.119 mg/l (EUSES v2.1)	0.495
freshwater sediments	0.708 mg/kg dry weight (EUSES v2.1)	0.616
Sea water	0.012 mg/l (EUSES v2.1)	0.495
Marine sediment	0.071 mg/kg dry weight (EUSES v2.1)	0.617
Sewage treatment plant	1.184 mg/l (EUSES v2.1)	< 0.01
Farmland	0.081 mg/kg dry weight (EUSES v2.1)	0.547
Prey for predators (freshwater)	1.469 mg/kg dry weight (EUSES v2.1)	< 0.01
Prey for predators (marine water)	0.148 mg/kg dry weight (EUSES v2.1)	< 0.01
Main predator prey (marine water)	0.031 mg/kg dry weight (EUSES v2.1)	< 0.01
Prey for Predators (Terrestrial)	0.028 mg/kg dry weight (EUSES v2.1)	< 0.01

5.3.2. Worker exposure: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.037 mg/m ³ (ECETOC TRA worker v3)	< 0.01
inhalation	systemic	Short term	0.147 mg/m ³ (ECETOC TRA worker v3)	< 0.01
inhalation	local	Long-term	0.037 mg/m ³ (ECETOC TRA worker v3)	< 0.01
inhalation	local	Short term	0.147 mg/m ³ (ECETOC TRA worker v3)	< 0.01
dermal	systemic	Long-term	0.034 mg/kg bw/day (ECETOC TRA worker v3)	< 0.01
combined routes	systemic	Long-term	/	< 0.01

5.3.3. Worker exposure: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	361.7 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	361.7 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	1.37 mg/kg bw/day (ECETOC TRA worker v3)	0.022
combined routes	systemic	Long-term	/	0.147

5.3.4. Worker exposure: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	361.7 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	361.7 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	1.37 mg/kg bw/day (ECETOC TRA worker v3)	0.022
combined routes	systemic	Long-term	/	0.147

5.3.5. Worker exposure: Chemical production or formulation in closed batch processes, with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	systemic	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
inhalation	local	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
dermal	systemic	Long-term	0.69 mg/kg bw/day (ECETOC TRA worker v3)	0.011
combined routes	systemic	Long-term	/	0.261

5.3.6. Worker exposure: Production of chemicals with the possibility of exposure (PROC4)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	36.71 mg/m ³ (ECETOC TRA worker v3)	0.05
inhalation	systemic	Short term	146.8 mg/m ³ (ECETOC TRA worker v3)	0.1
inhalation	local	Long-term	36.71 mg/m ³ (ECETOC TRA worker v3)	0.05
inhalation	local	Short term	146.8 mg/m ³ (ECETOC TRA worker v3)	0.1
dermal	systemic	Long-term	6.86 mg/kg bw/day (ECETOC TRA worker v3)	0.109
combined routes	systemic	Long-term	/	0.159

5.3.7. Worker exposure: Mixing or blending in batch processes (PROC5)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.343

5.3.8. Worker exposure: Industrial spraying (PROC7)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	42.86 mg/kg bw/day (ECETOC TRA worker v3)	0.68
combined routes	systemic	Long-term	/	0.805

5.3.9. Worker exposure: Industrial spraying (PROC7)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	42.86 mg/kg bw/day (ECETOC TRA worker v3)	0.68
combined routes	systemic	Long-term	/	0.805

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.343

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	27.53 mg/m ³ (ECETOC TRA worker v3)	0.038
inhalation	systemic	Short term	110.1 mg/m ³ (ECETOC TRA worker v3)	0.075
inhalation	local	Long-term	27.53 mg/m ³ (ECETOC TRA worker v3)	0.038
inhalation	local	Short term	110.1 mg/m ³ (ECETOC TRA worker v3)	0.075
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.255

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	27.43 mg/kg bw/day (ECETOC TRA worker v3)	0.435
combined routes	systemic	Long-term	/	0.56

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.343

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	systemic	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
inhalation	local	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
dermal	systemic	Long-term	0.34 mg/kg bw/day (ECETOC TRA worker v3)	< 0.01
combined routes	systemic	Long-term	/	0.255

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	73.42 mg/m ³ (ECETOC TRA worker v3)	0.1
inhalation	systemic	Short term	293.6 mg/m ³ (ECETOC TRA worker v3)	0.2
inhalation	local	Long-term	73.42 mg/m ³ (ECETOC TRA worker v3)	0.1
inhalation	local	Short term	293.6 mg/m ³ (ECETOC TRA worker v3)	0.2
dermal	systemic	Long-term	6.86 mg/kg bw/day (ECETOC TRA worker v3)	0.109
combined routes	systemic	Long-term	/	0.209

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	3.43 mg/kg bw/day (ECETOC TRA worker v3)	0.054
combined routes	systemic	Long-term	/	0.179

5.4. 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: <https://echa.europa.eu/>

ES 9: PROFESSIONAL APPLICATION OF COATINGS AND INKS (14); INDUSTRIAL USES (SU3). COVERS USE IN COATINGS (PAINTS, INKS, ADHESIVES, ETC.) INCLUDING EXPOSURES DURING USE (RECEIPT OF MATERIAL, STORAGE, PREPARATION AND TRANSFER OF BULK AND SEMI-BULK PRODUCTS, APPLICATION BY SPRAY, ROLLER OR SPREADER, DIPPING, FLOW, FLUIDIZED BED ON PRODUCTION LINES AND FILM FORMATION), THE CLEANING AND MAINTENANCE OF THE EQUIPMENT AND THE ASSOCIATED LABORATORY ACTIVITIES [GES3_I].

9.1. WIDE DISPERSIVE USE BY PROFESSIONAL WORKERS

Environment

SC 1: Wide dispersive use of non-reactive processing aid (no inclusion into the article, outdoor) ERC8d

Worker

SC 3: Generalized exposures (closed systems) PROC1
SC 4: Filling of equipment from drums and containers PROC2
SC 5: Generalized exposures (closed systems), Use in closed systems PROC2
SC 6: Preparation of material for application, Generalized exposures PROC3
SC 7: Film formation - air drying, Indoor use PROC4
SC 8: Film formation - air drying, Outdoor use PROC4
SC 9: Preparation of material for application, Indoor use PROC5
SC 10: Preparation of material for application, Outdoor use PROC5
SC 11: Material transfers, Drum/batch transfers, Non-Specialized site PROC8a
SC 12: 12 Material Transfers, Drum/batch transfers, specialized site PROC8b
SC 13: Roller, diffusion, flow application, Indoor use PROC10
SC 14: Roller, diffusion, flow application, Outdoor use PROC10
SC 15: Manual spraying, Indoor use PROC11
SC 16: Manual spraying, Outdoor use PROC11
SC 17: Immersion, dipping and pouring, Indoor use PROC13
SC 18: Immersion, dipping and pouring, Outdoor use PROC13
SC 19: Laboratory activities PROC15
SC 20: Hand application - finger paints, crayons, stickers, Indoor use PROC19
SC 21: Hand application - finger paints, crayons, stickers, Outdoor use PROC19

9.2. CONDITIONS OF USE THAT AFFECT EXPOSURE

9.2.1 Environmental exposure control: Wide dispersive use of non-reactive processing aid (no inclusion into the article, outdoor) (ERC8d)

Organizational and technical measures and conditions

A wastewater treatment plant is expected.

Conditions and measures for waste treatment (including the article of waste)

Waste treatment: Dispose of waste products or used containers according to local regulations.

9.2.3. Worker Exposure Control: Chemical production or refinement in closed processes without likelihood of exposure or in processes with equivalent containment conditions (PROC1)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.4. Worker Exposure Control: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.5. Worker Exposure Control: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.6. Worker Exposure Control: Chemical production or formulation in closed batch processes, with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (3 to 5 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.7. Worker Exposure Control: Production of chemicals with the possibility of exposure (PROC4)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 80%

Provide a basic level of general ventilation (3 to 5 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.8. Worker Exposure Control: Production of chemicals with the possibility of exposure (PROC4)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.9. Worker Exposure Control: Mixing or blending in batch processes (PROC5)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 80%

Provide a basic level of general ventilation (3 to 5 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.10. Worker Exposure Control: Mixing or blending in batch processes (PROC5)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable respirator.

For more information, refer to Section 8 of the SDS (safety data sheet).

Inhalation - minimum yield of 90%

Other conditions affecting worker exposure

Indoor and outdoor use: Outdoor use

Temperature: Process temperature up to 40°C is assumed

9.2.11. Worker Exposure Control: Transfer of a substance or a preparation (filling/emptying) at non-dedicated facilities (PROC8a) (PROC8b)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (3 to 5 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

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

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 90%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.13. Worker Exposure Control: Application with rollers or brushes (PROC10)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 80%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.14. Worker Exposure Control: Application with rollers or brushes (PROC10)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable respirator.

For more information, refer to Section 8 of the SDS (safety data sheet).

Inhalation - minimum yield of 90%

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.15. Worker Exposure Control: Non-industrial spray application (PROC11)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 80%

Provide a basic level of general ventilation (3 to 5 air changes per hour).

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable gloves tested to EN374.

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.

For more information, refer to Section 8 of the SDS (safety data sheet).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.16. Worker Exposure Control: Non-industrial spray application (PROC11)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable gloves tested to EN374.

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.

For more information, refer to Section 8 of the SDS (safety data sheet).

Wear suitable respirator.

For more information, refer to Section 8 of the SDS (safety data sheet).

Inhalation - minimum yield of 90%

Other conditions affecting worker exposure

Indoor and outdoor use: Outdoor use

Temperature: Process temperature up to 40°C is assumed

9.2.17. Worker Exposure Control: Treatment of articles by dipping and pouring (PROC13)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a good standard of general ventilation (from 5 to 10 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.18. Worker Exposure Control: Treatment of articles by dipping and pouring (PROC13)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable respirator.

For more information, refer to Section 8 of the SDS (safety data sheet).

Inhalation - minimum yield of 90%

Other conditions affecting worker exposure

Indoor and outdoor use: Outdoor use

Temperature: Process temperature up to 40°C is assumed

9.2.19. Worker Exposure Control: Use as laboratory reagents (PROC15)

Product features (article)

Covers concentrations up to 100%.

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.20. Worker Exposure Control: Hand-mixing with direct contact and only PPE available (PROC19)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a good standard of general ventilation (from 5 to 10 air changes per hour).

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable gloves tested to EN374.

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.

For more information, refer to Section 8 of the SDS (safety data sheet).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.2.21. Worker Exposure Control: Hand-mixing with direct contact and only PPE available (PROC19)

Product features (article)

Covers concentrations up to 5 %

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable gloves tested to EN374.

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.

For more information, refer to Section 8 of the SDS (safety data sheet).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

9.3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

9.3.1. Environmental release and exposure: Wide dispersive use of non-reactive processing aid (no inclusion into the article, outdoor) (ERC8d)

Route release	Release rate	Method for estimating for release
water	0.014 kg/day	Estimated release factor
air	980 kg/day	Estimated release factor
Soil	0 kg/day	Estimated release factor

Protection target	Estimated exposure	RCR
Fresh water	0.000396 mg/l (EUSES v2.1)	< 0.01
freshwater sediments	0.00236 mg/kg dry weight (EUSES v2.1)	< 0.01
Sea water	0.0000597 mg/l (EUSES v2.1)	< 0.01
Marine sediment	0.000356 mg/kg dry weight (EUSES v2.1)	< 0.01
Sewage treatment plant	0.000805 mg/l (EUSES v2.1)	< 0.01
Farmland	0.000131 mg/kg dry weight (EUSES v2.1)	< 0.01
Prey for predators (freshwater)	0.011 mg/kg wet weight (EUSES v2.1)	< 0.01
Prey for predators (marine water)	0.00167 mg/kg wet weight (EUSES v2.1)	< 0.01
Main predator prey (marine water)	0.00158 mg/kg wet weight (EUSES v2.1)	< 0.01
Prey for Predators (Terrestrial)	0.000114 mg/kg wet weight (EUSES v2.1)	< 0.01

9.3.3. Worker exposure: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.367 mg/m ³ (ECETOC TRA worker v3)	< 0.01
inhalation	systemic	Short term	1.468 mg/m ³ (ECETOC TRA worker v3)	< 0.01
inhalation	local	Long-term	0.367 mg/m ³ (ECETOC TRA worker v3)	< 0.01
inhalation	local	Short term	1.468 mg/m ³ (ECETOC TRA worker v3)	< 0.01
dermal	systemic	Long-term	0.034 mg/kg bw/day (ECETOC TRA worker v3)	< 0.01
combined routes	systemic	Long-term	/	< 0.01

9.3.4. Worker exposure: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	systemic	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
inhalation	local	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
dermal	systemic	Long-term	1.37 mg/kg bw/day (ECETOC TRA worker v3)	0.022
combined routes	systemic	Long-term	/	0.272

9.3.5. Worker exposure: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
inhalation	local	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	systemic	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
dermal	systemic	Long-term	1.37 mg/kg bw/day (ECETOC TRA worker v3)	0.022
combined routes	systemic	Long-term	/	0.272

9.3.6. Worker exposure: Chemical production or formulation in closed batch processes, with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	0.69 mg/kg bw/day (ECETOC TRA worker v3)	0.011
combined routes	systemic	Long-term	/	0.361

9.3.7. Worker exposure: Production of chemicals with the possibility of exposure (PROC4)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	128.4 mg/m ³ (ECETOC TRA worker v3)	0.175
inhalation	systemic	Short term	513.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Long-term	128.4 mg/m ³ (ECETOC TRA worker v3)	0.175
inhalation	local	Short term	513.9 mg/m ³ (ECETOC TRA worker v3)	0.35
dermal	systemic	Long-term	6.86 mg/kg bw/day (ECETOC TRA worker v3)	0.109
combined routes	systemic	Long-term	/	0.284

9.3.8. Worker exposure: Production of chemicals with the possibility of exposure (PROC4)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	6.86 mg/kg bw/day (ECETOC TRA worker v3)	0.109
combined routes	systemic	Long-term	/	0.459

9.3.9. Worker exposure: Mixing or blending in batch processes (PROC5)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.568

9.3.10. Worker exposure: Mixing or blending in batch processes (PROC5)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	128.4 mg/m ³ (ECETOC TRA worker v3)	0.175
inhalation	systemic	Short term	513.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Long-term	128.4 mg/m ³ (ECETOC TRA worker v3)	0.175
inhalation	local	Short term	513.9 mg/m ³ (ECETOC TRA worker v3)	0.35
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.393

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.568

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	systemic	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Long-term	91.77 mg/m ³ (ECETOC TRA worker v3)	0.125
inhalation	local	Short term	367.1 mg/m ³ (ECETOC TRA worker v3)	0.25
dermal	systemic	Long-term	13.71 mg/kg bw/day (ECETOC TRA worker v3)	0.218
combined routes	systemic	Long-term	/	0.343

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	27.43 mg/kg bw/day (ECETOC TRA worker v3)	0.435
combined routes	systemic	Long-term	/	0.785

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	128.4 mg/m ³ (ECETOC TRA worker v3)	0.175
inhalation	systemic	Short term	513.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Long-term	128.4 mg/m ³ (ECETOC TRA worker v3)	0.175
inhalation	local	Short term	513.9 mg/m ³ (ECETOC TRA worker v3)	0.35
dermal	systemic	Long-term	27.43 mg/kg bw/day (ECETOC TRA worker v3)	0.435
combined routes	systemic	Long-term	/	0.61

9.3.15. Worker exposure: Non-industrial spray application (PROC11)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	308.3 mg/m ³ (ECETOC TRA worker v3)	0.42
inhalation	systemic	Short term	mg/m ³ (ECETOC TRA worker v3)	0.84
inhalation	local	Long-term	308.3 mg/m ³ (ECETOC TRA worker v3)	0.42
inhalation	local	Short term	mg/m ³ (ECETOC TRA worker v3)	0.84
dermal	systemic	Long-term	12.85 mg/kg bw/day (ECETOC TRA worker v3)	0.204
combined routes	systemic	Long-term	/	0.624

9.3.16. Worker exposure: Non-industrial spray application (PROC11)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	154.1 mg/m ³ (ECETOC TRA worker v3)	0.21
inhalation	systemic	Short term	616.7 mg/m ³ (ECETOC TRA worker v3)	0.42
inhalation	local	Long-term	154.1 mg/m ³ (ECETOC TRA worker v3)	0.21
inhalation	local	Short term	616.7 mg/m ³ (ECETOC TRA worker v3)	0.42
dermal	systemic	Long-term	12.85 mg/kg bw/day (ECETOC TRA worker v3)	0.204
combined routes	systemic	Long-term	/	0.414

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	systemic	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	local	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	local	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
dermal	systemic	Long-term	8.226 mg/kg bw/day (ECETOC TRA worker v3)	0.131
combined routes	systemic	Long-term	/	0.356

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	38.54 mg/m ³ (ECETOC TRA worker v3)	0.053
inhalation	systemic	Short term	154.1 mg/m ³ (ECETOC TRA worker v3)	0.105
inhalation	local	Long-term	38.54 mg/m ³ (ECETOC TRA worker v3)	0.053
inhalation	local	Short term	154.1 mg/m ³ (ECETOC TRA worker v3)	0.105
dermal	systemic	Long-term	8.226 mg/kg bw/day (ECETOC TRA worker v3)	0.131
combined routes	systemic	Long-term	/	0.183

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	systemic	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
inhalation	local	Long-term	183.5 mg/m ³ (ECETOC TRA worker v3)	0.25
inhalation	local	Short term	734.2 mg/m ³ (ECETOC TRA worker v3)	0.5
dermal	systemic	Long-term	0.34 mg/kg bw/day (ECETOC TRA worker v3)	< 0.01
combined routes	systemic	Long-term	/	0.255

9.3.20. Worker exposure: Hand-mixing with direct contact and only PPE available (PROC19)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	330.3 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	systemic	Short term	1.32 g/m ³ (ECETOC TRA worker v3)	0.9
inhalation	local	Long-term	330.3 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	local	Short term	1.32 g/m ³ (ECETOC TRA worker v3)	0.9
dermal	systemic	Long-term	16.97 mg/kg bw/day (ECETOC TRA worker v3)	0.269
combined routes	systemic	Long-term	/	0.72

9.3.21. Worker exposure: Hand-mixing with direct contact and only PPE available (PROC19)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	mg/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	mg/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	5.657 mg/kg bw/day (ECETOC TRA worker v3)	0.09
combined routes	systemic	Long-term	/	0.44

9.4. 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: <https://echa.europa.eu/>

ES 12: USE IN DETERGENT PRODUCTS (GEST4_I, GEST4_P, GEST4_C).

12.1. WIDE DISPERSIVE USE BY PROFESSIONAL WORKERS

Environment

SC 1: Wide dispersive use of non-reactive processing aid (no inclusion into the article, indoors) ERC8a

Worker

SC 2: Filling of equipment from drums and containers, specialised site PROC8b

SC 3: Automated process with (semi) closed systems; Use in closed systems PROC2

SC 4: Automated process with (semi) closed systems Drum/batch transfers, Use in closed systems PROC3

SC 5: Semi-automatic process (e.g: Semi-automatic application of floor care and maintenance products) PROC4

SC 6: Filling of equipment from drums and containers, Outdoor use PROC8a

SC 7: Immersion, dipping and pouring, Manual, Surfaces, Cleaning PROC13

SC 8: Cleaning with low-pressure washers, Roller application or brushing, No spraying PROC10

SC 9: Cleaning with high pressure washers, Spraying, Indoor use PROC11

SC 10: Cleaning with high pressure washers Spraying, Outdoor use PROC11

SC 11: Application of cleaning products in closed systems, Manual, Surfaces, Cleaning PROC10

SC 12: Ad hoc manual application via trigger sprays, partial dipping, etc., Roller application or brushing PROC10

SC 13: Application of cleaning products in closed systems, Outdoor use PROC4

SC 14: Cleaning of medical devices PROC4

12.2. CONDITIONS OF USE THAT AFFECT EXPOSURE

12.2.1 Environmental exposure control: Wide dispersive use of non-reactive processing aid (no inclusion into the article, indoors) (ERC8a)

Organizational and technical measures and conditions

A wastewater treatment plant is expected.

Conditions and measures for waste treatment (including the article of waste)

Waste treatment: Dispose of waste products or used containers according to local regulations.

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

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a good standard of general ventilation (from 5 to 10 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.2.3. Worker Exposure Control: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.2.4. Worker Exposure Control: Chemical production or formulation in closed batch processes, with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.2.5. Worker Exposure Control: Production of chemicals with the possibility of exposure (PROC4)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a good standard of general ventilation (from 5 to 10 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

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

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable respirator.

For more information, refer to Section 8 of the SDS (safety data sheet).

Inhalation - minimum yield of 90%

Other conditions affecting worker exposure

Indoor and outdoor use: Outdoor use

Temperature: Process temperature up to 40°C is assumed

12.2.7. Worker Exposure Control: Treatment of articles by dipping and pouring (PROC13)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a good standard of general ventilation (from 5 to 10 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.2.8. Worker Exposure Control: Application with rollers or brushes (PROC10)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a good standard of general ventilation (from 5 to 10 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.2.9. Worker Exposure Control: Non-industrial spray application (PROC11)

Product features (article)

Covers concentrations up to 5 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Provide a good standard of general ventilation (from 5 to 10 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.2.10. Worker Exposure Control: Non-industrial spray application (PROC11)

Product features (article)

Covers concentrations up to 1%

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable gloves tested to EN374.

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.

For more information, refer to Section 8 of the SDS (safety data sheet).

Other conditions affecting worker exposure

Indoor and outdoor use: Outdoor use

Temperature: Process temperature up to 40°C is assumed

12.2.11. Worker Exposure Control: Application with rollers or brushes (PROC10)

Product features (article)

Covers concentrations up to 5 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

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

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

5.2.12. Worker Exposure Control: Application with rollers or brushes (PROC10)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 80%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.2.13. Worker Exposure Control: Production of chemicals with the possibility of exposure (PROC4)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Conditions and measures for personal protection, hygiene and health assessment

Wear suitable respirator.

For more information, refer to Section 8 of the SDS (safety data sheet).

Inhalation - minimum yield of 90%

Other conditions affecting worker exposure

Indoor and outdoor use: Outdoor use

Temperature: Process temperature up to 40°C is assumed

12.2.14. Worker Exposure Control: Production of chemicals with the possibility of exposure (PROC4)

Product features (article)

Covers concentrations up to 25 %

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

Frequency of use: Covers use up to 8 h/day

Organizational and technical measures and conditions

Local exhaust ventilation

Inhalation - minimum yield of 80%

Provide a basic level of general ventilation (1 to 3 air changes per hour).

Other conditions affecting worker exposure

Indoor and outdoor use: Indoor use

Temperature: Process temperature up to 40°C is assumed

12.3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

12.3.1. Environmental release and exposure: Wide dispersive use of non-reactive processing aid (no inclusion into the article, indoors) (ERC8a)

Route release	Release rate	Method for estimating for release
water	0.014 kg/day	Environmental Release Category (ERC)
air	0.014 kg/day	Environmental Release Category (ERC)
Soil	0 kg/day	Environmental Release Category (ERC)

Protection target	Estimated exposure	RCR
Fresh water	0.000397 mg/l (EUSES v2.1)	< 0.01
freshwater sediments	0.00237 mg/kg dry weight (EUSES v2.1)	< 0.01
Sea water	0.000598 mg/l (EUSES v2.1)	< 0.01
Marine sediment	0.000357 mg/kg dry weight (EUSES v2.1)	< 0.01
Sewage treatment plant	0.000811 mg/l (EUSES v2.1)	< 0.01
Farmland	0.000131 mg/kg dry weight (EUSES v2.1)	< 0.01
Prey for predators (freshwater)	0.011 mg/kg dry weight (EUSES v2.1)	< 0.01
Prey for predators (marine water)	0.00167 mg/kg dry weight (EUSES v2.1)	< 0.01
Main predator prey (marine water)	0.00158 mg/kg dry weight (EUSES v2.1)	< 0.01
Prey for Predators (Terrestrial)	0.000114 mg/kg dry weight (EUSES v2.1)	< 0.01

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	systemic	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	local	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	local	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
dermal	systemic	Long-term	8.226 mg/kg bw/day (ECETOC TRA worker v3)	0.131
combined routes	systemic	Long-term	/	0.356

12.3.3. Worker exposure: Chemical production or refinery in closed process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	110.1 mg/m ³ (ECETOC TRA worker v3)	0.15
inhalation	local	Long-term	110.1 mg/m ³ (ECETOC TRA worker v3)	0.15
inhalation	local	Short term	440.5 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	systemic	Short term	440.5 mg/m ³ (ECETOC TRA worker v3)	0.3
dermal	systemic	Long-term	0.822 mg/kg bw/day (ECETOC TRA worker v3)	0.013
combined routes	systemic	Long-term	/	0.163

12.3.4. Worker exposure: Chemical production or formulation in closed batch processes, with occasional controlled exposure or processes with equivalent containment conditions (PROC3)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	220.2 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	systemic	Short term	881.0 mg/m ³ (ECETOC TRA worker v3)	0.6
inhalation	local	Long-term	220.2 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	local	Short term	881.0 mg/m ³ (ECETOC TRA worker v3)	0.6
dermal	systemic	Long-term	0.414 mg/kg bw/day (ECETOC TRA worker v3)	< 0.01
combined routes	systemic	Long-term	/	0.307

12.3.5. Worker exposure: Production of chemicals with the possibility of exposure (PROC4)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	systemic	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	local	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	local	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
dermal	systemic	Long-term	4.116 mg/kg bw/day (ECETOC TRA worker v3)	0.065
combined routes	systemic	Long-term	/	0.29

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	77.09 mg/m ³ (ECETOC TRA worker v3)	0.105
inhalation	systemic	Short term	308.3 mg/m ³ (ECETOC TRA worker v3)	0.21
inhalation	local	Long-term	77.09 mg/m ³ (ECETOC TRA worker v3)	0.105
inhalation	local	Short term	308.3 mg/m ³ (ECETOC TRA worker v3)	0.21
dermal	systemic	Long-term	8.226 mg/kg bw/day (ECETOC TRA worker v3)	0.131
combined routes	systemic	Long-term	/	0.236

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	systemic	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	local	Long-term	165.1 mg/m ³ (ECETOC TRA worker v3)	0.225
inhalation	local	Short term	660.7 mg/m ³ (ECETOC TRA worker v3)	0.45
dermal	systemic	Long-term	8.226 mg/kg bw/day (ECETOC TRA worker v3)	0.131
combined routes	systemic	Long-term	/	0.356

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	330.3 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	systemic	Short term	mg/m ³ (ECETOC TRA worker v3)	0.9
inhalation	local	Long-term	330.3 mg/m ³ (ECETOC TRA worker v3)	0.45
inhalation	local	Short term	mg/m ³ (ECETOC TRA worker v3)	0.9
dermal	systemic	Long-term	16.45 mg/kg bw/day (ECETOC TRA worker v3)	0.261
combined routes	systemic	Long-term	/	0.711

12.3.9. Worker exposure: Non-industrial spray application (PROC11)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	220.2 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	systemic	Short term	881.0 mg/m ³ (ECETOC TRA worker v3)	0.6
inhalation	local	Long-term	220.2 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	local	Short term	881.0 mg/m ³ (ECETOC TRA worker v3)	0.6
dermal	systemic	Long-term	21.42 mg/kg bw/day (ECETOC TRA worker v3)	0.34
combined routes	systemic	Long-term	/	0.64

12.3.10. Worker exposure: Non-industrial spray application (PROC11)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	2.143 mg/kg bw/day (ECETOC TRA worker v3)	0.034
combined routes	systemic	Long-term	/	0.384

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	systemic	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
inhalation	local	Long-term	256.9 mg/m ³ (ECETOC TRA worker v3)	0.35
inhalation	local	Short term	1.03 g/m ³ (ECETOC TRA worker v3)	0.7
dermal	systemic	Long-term	5.486 mg/kg bw/day (ECETOC TRA worker v3)	0.087
combined routes	systemic	Long-term	/	0.437

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

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	220.2 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	systemic	Short term	881.0 mg/m ³ (ECETOC TRA worker v3)	0.6
inhalation	local	Long-term	220.2 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	local	Short term	881.0 mg/m ³ (ECETOC TRA worker v3)	0.6
dermal	systemic	Long-term	16.45 mg/kg bw/day (ECETOC TRA worker v3)	0.261
combined routes	systemic	Long-term	/	0.561

12.3.13. Worker exposure: Production of chemicals with the possibility of exposure (PROC4)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	38.54 mg/m ³ (ECETOC TRA worker v3)	0.053
inhalation	systemic	Short term	154.1 mg/m ³ (ECETOC TRA worker v3)	0.105
inhalation	local	Long-term	38.54 mg/m ³ (ECETOC TRA worker v3)	0.053
inhalation	local	Short term	154.1 mg/m ³ (ECETOC TRA worker v3)	0.105
dermal	systemic	Long-term	4.116 mg/kg bw/day (ECETOC TRA worker v3)	0.065
combined routes	systemic	Long-term	/	0.118

12.3.14. Worker exposure: Production of chemicals with the possibility of exposure (PROC4)

Exposure routes	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	110.1 mg/m ³ (ECETOC TRA worker v3)	0.15
inhalation	systemic	Short term	440.5 mg/m ³ (ECETOC TRA worker v3)	0.3
inhalation	local	Long-term	110.1 mg/m ³ (ECETOC TRA worker v3)	0.15
inhalation	local	Short term	440.5 mg/m ³ (ECETOC TRA worker v3)	0.3
dermal	systemic	Long-term	4.116 mg/kg bw/day (ECETOC TRA worker v3)	0.065
combined routes	systemic	Long-term	/	0.215

12.4. 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: <https://echa.europa.eu/>

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

Substance identification

Chemical Name: bis-[4-(2,3-epoxipropoxy)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/m ³	< 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/m ³	0.201
inhalation	local	Long-term	0.993mg/m ³	-
inhalation	local	Short term	0.993mg/m ³	-
dermal	systemic	Long-term	0.172mg/kg bw/day	0.045
dermal	local	Short term	9.92E-3mg/cm ²	-
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/m ³	0.017
inhalation	local	Long-term	0.085mg/m ³	-
inhalation	local	Short term	0.085mg/m ³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.06mg/cm ²	-
combined routes	-	-	-	0.566

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/m ³	0.201
inhalation	local	Long-term	0.993mg/m ³	-
inhalation	local	Short term	0.993mg/m ³	-
dermal	systemic	Long-term	0.172mg/kg bw/day	0.229
dermal	local	Short term	0.0025mg/cm ²	-
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/m ³	0.121
inhalation	local	Long-term	0.596mg/m ³	-
inhalation	local	Short term	0.596mg/m ³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm ²	-
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/m ³	0.121
inhalation	local	Long-term	0.596mg/m ³	-
inhalation	local	Short term	0.596mg/m ³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm ²	-
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).

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/m ³	< 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/m ³ (ART v1.5)	0.069
inhalation	local	Long-term	0.34mg/m ³ (ART v1.5)	-
inhalation	local	Short term	0.78mg/m ³ (ART v1.5)	-
dermal	systemic	Long-term	0.257mg/kgbw/day (ECETOC TRA worker v3)	0.343
dermal	local	Short term	0.012mg/cm ² (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/m ³	0.173
inhalation	local	Long-term	0.851mg/m ³	-
inhalation	local	Short term	0.851mg/m ³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm ²	-
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/m ³	0.017
inhalation	local	Long-term	0.085mg/m ³	-
inhalation	local	Short term	0.0851mg/m ³	-
dermal	systemic	Long-term	0.411mg/kgbw/day	0.548
dermal	local	Short term	0.03mg/cm ²	-
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/m ³	0.02
inhalation	local	Long-term	0.099mg/m ³	-
inhalation	local	Short term	0.993mg/m ³	-
dermal	systemic	Long-term	0.343mg/kgbw/day	0.457
dermal	local	Short term	0.05mg/cm ²	-
combined routes	-	-	-	0.659

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/m ³	0.017
inhalation	local	Long-term	0.085mg/m ³	-
inhalation	local	Short term	0.085mg/m ³	-
dermal	systemic	Long-term	0.165mg/kgbw/day	0.219
dermal	local	Short term	0.012mg/cm ²	-
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/m ³ (ART v1 .5)	0.069
inhalation	local	Long-term	0.34mg/m ³ (ART v1 .5)	-
inhalation	local	Short term	0.78mg/m ³ (ART v1 .5)	-
dermal	systemic	Long-term	0.643mg/kgbw/day (ECETOC TRA worker v3)	0.857
dermal	local	Short term	0.03mg/cm ² (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.

Varnostni list

ADYWOOD 2K COMP.B

Varnostni list z dne 10/09/2024 revizija 2



ODDELEK 1: Identifikacija snovi/zmesi in družbe/podjetja

1.1 Identifikator izdelka

Identifikacija pripravka:

Komercialno ime: ADYWOOD 2K COMP.B

Komercialna koda: 580.B

UFI: 1Y1H-H0UT-P00J-9JXM

1.2 Pomembne identificirane uporabe snovi ali zmesi in odsvetovane uporabe

Priporočena uporaba: Poliamidni trdilec

Odsvetovane uporabe: Samo za profesionalno uporabo.

1.3 Podrobnosti o dobavitelju varnostnega lista

Dobavitelj FASSA Srl

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

Tel. +39 0422 7222

Fax +39 0422 887509

Odgovorni: laboratorio.spresiano@fassabortolo.it

1.4 Telefonska številka za nujne primere

112 - Center za obveščanje (na voljo 24 ur)

ODDELEK 2: Določitev nevarnosti



2.1 Razvrstitev snovi ali zmesi

Uredba (ES) št. 1272/2008 (CLP)

Skin Irrit. 2	Povzroča draženje kože.
Eye Dam. 1	Povzroča hude poškodbe oči.
Skin Sens. 1	Lahko povzroči alergijski odziv kože.
Aquatic Chronic 3	Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Nevarnosti fizikalno-kemijskih lastnosti za zdravje ljudi in za okolje:

Ni drugih tveganj

2.2 Elementi etikete

Uredba (ES) št. 1272/2008 (CLP)

Piktogrami za nevarnost in Opozorilna beseda



Nevarno

Stavki o nevarnosti

H315	Povzroča draženje kože.
H317	Lahko povzroči alergijski odziv kože.
H318	Povzroča hude poškodbe oči.
H412	Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Previdnostni stavki

P261	Ne vdihavati hlapov.
P273	Preprečiti sproščanje v okolje.
P280	Nadenite si zaščitne rokavice in zaščitite oči/obraz.
P302+P352	PRI STIKU S KOŽO: umiti z veliko mila in vode.
P305+P351+P338	PRI STIKU Z OČMI: Previdno izpirati z vodo nekaj minut. Odstranite kontaktne leče, če jih imate in če to lahko storite brez težav. Nadaljujte z izpiranjem.

Vsebuje:

3-aminometil-3,5,5-trimetilcikloheksilamin
Maščobne kisline, C18-nesatd., dimeri,
polimerni reakcijski produkti z maščobnimi
kisljinami iz visokih olj in trietilentetramin

Reakcijski produkt maščobnih kislin, C18
alkil z amini, polietilen-tetraetilenpentamin
frakcija

Posebne določbe v skladu s Prilogo XVII uredbe REACH in poznejše spremembe:

Nobeden

2.3 Druge nevarnosti

Ni snovi PBT, vPvB ali endokrinih motilcev v
koncentraciji > = 0,1%.

Ni drugih tveganj

ODDELEK 3: Sestava/podatki o sestavinah

3.1 Snovi

ni znano

3.2 Zmesi

Identifikacija pripravka: ADYWOOD 2K COMP.B

Nevarne sestavine, skladno z Uredbo CLP in njeno razvrstitvijo:

Količina	Ime	Ident. št.	Razvrstitev	Registracijska številka:
≥20 - <30 %	Reakcijski produkt maščobnih kislin, C18 alkil z amini, polietilen-tetraetilenpentamin frakcija	EC:701-046-0	Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Chronic 2, H411	01-2119972321-42-xxxx
≥10 - <20 %	Maščobne kisline, C18-nesatd., dimeri, polimerni reakcijski produkti z maščobnimi kisljinami iz visokih olj in trietilentetramin	CAS:68082-29-1 EC:500-191-5	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
≥3 - <5 %	2,4,6-tris(dimetilaminometil)fenol	CAS:90-72-2 EC:202-013-9 Index:603-069-00-0	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Ocena akutne strupenosti: ATE - Oralno: 500mg/kg tt	01-2119560597-27-xxxx
≥1 - <3 %	3-aminometil-3,5,5-trimetilcikloheksilamin	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 Posebne mejne koncentracije: C ≥ 0.001%: Skin Sens. 1A H317 Ocena akutne strupenosti: ATE - Oralno: 1030mg/kg tt	01-2119514687-32-xxxx

ODDELEK 4: Ukrepi za prvo pomoč

4.1 Opis ukrepov za prvo pomoč

V primeru stika s kožo:

Kontaminirana oblačila takoj slecite in jih na varen način odstranite.

V primeru stika s proizvodom in tudi v primeru suma morebitnega stika, dele telesa takoj umijte z veliko količino tekoče vode in milom.

TAKOJ SE POSVETUJTE Z ZDRAVNIKOM.

V primeru stika z očmi:

V primeru stika z očmi dovolj dolgo in z odprtimi očesnimi vekami izpirajte z obilo vode, nato poiščite pomoč zdravnika oftalmologa. Poškodovano oko zaščitite.

V primeru zaužitja:

Po zaužitju ne izzivati bruhanja, takoj poiskati zdravniško pomoč in pokazati varnostni list in nalepko.

V primeru vdihavanja:

Prizadeto osebo umaknite na svež zrak in pustite počivati na toplem.

4.2 Najpomembnejši simptomi in učinki, akutni in zapozneli

Simptomi in učinki so taki, kot je pričakovano glede na nevarnosti, kar je prikazano v 2. razdelku.

4.3 Navedba kakršne koli takojšnje medicinske oskrbe in posebnega zdravljenja

V primeru nesreče ali slabega počutja takoj poiščite zdravniško pomoč (če je mogoče, pokažite navodila za uporabo ali varnostni list).

ODDELEK 5: Protipožarni ukrepi

5.1 Sredstva za gašenje

Ustrezna sredstva za gašenje:

CO₂, gasilni aparat na prah, pena, pršenje z vodo.

Sredstva za gašenje, ki se jih iz varnostnih razlogov ne sme uporabljati:

Vodni curki

5.2 Posebne nevarnosti v zvezi s snovjo ali zmesjo

Pri gorenju nastajajo težki dimni plini.

Ne vdihavati pline, ki nastanejo pri eksploziji in/ali gorenju (ogljikov monoksid in ogljikov dioksid, dušikovi oksidi).

5.3 Nasvet za gasilce

Uporabiti ustrezne dihalne naprave.

Ločeno zberite kontaminirano vodo, uporabljeno za gašenje požara. Ne je izpustiti v kanalizacijo.

Če je to varno izvedljivo, nepoškodovane vsebnike umaknite iz neposredno ogroženega območja.

ODDELEK 6: Ukrepi o nenamernih izpustih

6.1 Osební varnostni ukrepi, zaščitna oprema in postopki v sili

Za neizučeno osebo:

Nosite osebno varovalno opremo.

Osebe umaknite na varno mesto.

Glejte v točki 7 in 8 navedene zaščitne ukrepe.

Za reševalce:

Nosite osebno varovalno opremo.

6.2 Okoljevarstveni ukrepi

Preprečite vstop v tla/podtalnico. Preprečite razlitje v površinske vode ali v kanalizacijo.

V primeru puščanja plina ali razlitja v vodne tokove, tla ali kanalizacijo obvestite pristojne organe.

6.3 Metode in materiali za zadrževanje in čiščenje

Za zbiranje primeren material: inerten vpojní materialí (npr. pesek, vermikulit).

Po pobiranju z vodo izperite območje in prizadete materiale.

Kontaminirano vodo za pranje shranite in odstranite.

6.4 Sklícévanje na druge oddelke

Glejte tudi naslova 8 in 13

ODDELEK 7: Ravnanje in skladiščénje

7.1 Varnostni ukrepi za varno ravnanje

Preprečite stik s kožo in očmi, vdihavanje hlapov in megle.

Prazne vsebnike ne uporabite dokler niso očíščeni.

Pred postopki prenosa se prepričajte, da v vsebnikih ni ostankov nezdružljivih materialov.

Nasveti o splošni higieni dela:

Kontaminirana oblačila se mora pred vstopom v jedilnico zamenjati.

Med delom ne jejte in ne pijte.

Glejte tudi naslov 8 o priporočeni varovalni opremi.

7.2 Pogoji za varno skladiščénje, vključno z nezdružljivostjo

Posode hranite tesno zaprte na hladnem in dobro prezračevanem mestu proč od virov toplote.

Hranite stran od hrane, pijač in krme.

Inkompaktibilne snovi:

Glejte točko 10.5

Navodila za prostore:

Primerno zračeni prostori.

7.3 Posebne končne uporabe

Priporočila

Glejte točko 1.2

Specifične rešitve za industrijski sektor

Nobena posebna uporaba

ODDELEK 8: Nadzor izpostavljenosti/osebna zaščita

8.1 Parametri nadzora

Mejna vrednost izpostavljenosti po PNEC

Reakcijski produkt maščobnih kislin, C18 alkil z amini, polietilen-tetraetilenpentamin frakcija

Način izpostavitve: Sladka voda; PNEC Omejite: 2.63 µg/l

Način izpostavitve: Morska voda; PNEC Omejite: 0.263 µg/l

Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 263.01 mg/kg

Način izpostavitve: Morski sedimenti; PNEC Omejite: 26.301 mg/kg

Način izpostavitve: Občasni izpusti (sladka voda); PNEC Omejite: 0.026 mg/l

Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 7.21 mg/l

Maščobne kisline, C18-nesatd., dimeri, polimerni reakcijski produkti z maščobnimi kislinami iz visokih olj in trietilentetramin

CAS: 68082-29-1 Način izpostavitve: Sladka voda; PNEC Omejite: 0.004 mg/l

Način izpostavitve: Morska voda; PNEC Omejite: 0 mg/l

Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 3.84 mg/l

Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 434.02 mg/kg

Način izpostavitve: Morski sedimenti; PNEC Omejite: 43.4 mg/kg

Način izpostavitve: Tla (kmetijska); PNEC Omejite: 86.78 mg/kg

2,4,6-tris(dimetilaminometil)fenol

CAS: 90-72-2 Način izpostavitve: Sladka voda; PNEC Omejite: 0.046 mg/l

Način izpostavitve: Morska voda; PNEC Omejite: 0.005 mg/l

Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 0.2 mg/l

Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 0.262 mg/kg

Način izpostavitve: Morski sedimenti; PNEC Omejite: 0.026 mg/kg

Način izpostavitve: Prst; PNEC Omejite: 0.025 mg/kg

3-aminometil-3,5,5-trimetilcikloheksilamin

CAS: 2855-13-2 Način izpostavitve: Sladka voda; PNEC Omejite: 0.06 mg/l

Način izpostavitve: Morska voda; PNEC Omejite: 0.006 mg/l

Način izpostavitve: Mikroorganizmi v čistilnih napravah (STP); PNEC Omejite: 3.18 mg/l

Način izpostavitve: Sladkovodni sedimenti; PNEC Omejite: 5.784 mg/kg

Način izpostavitve: Morski sedimenti; PNEC Omejite: 0.578 mg/kg

Način izpostavitve: Tla (kmetijska); PNEC Omejite: 1.121 mg/kg

Izpeljane vrednosti brez učinka. (DNEL)

Reakcijski produkt maščobnih kislin, C18 alkil z amini, polietilen-tetraetilenpentamin frakcija

Način izpostavitve: Oralno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Uporabnik: 0.56

Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 3.9 mg/m³; Uporabnik: 0.97 mg/m³

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 1.1 mg/kg; Uporabnik: 0.56 mg/m³

Maščobne kisline, C18-nesatd., dimeri, polimerni reakcijski produkti z maščobnimi kislinami iz visokih olj in trietilentetramin

CAS: 68082-29-1 Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 0.952 mg/m³; Uporabnik: 0.169 mg/m³

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 0.272 mg/kg; Uporabnik: 97.2 µg/kg

2,4,6-tris(dimetilaminometil)fenol

CAS: 90-72-2 Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 0.53 mg/m³; Uporabnik: 0.13 mg/m³

Način izpostavitve: Z vdihavanjem, človek; Pogostost izpostavitve: Kratkotrajna, sistemski učinek
Strokovni delavec: 2.1 mg/m³; Uporabnik: 0.13 mg/m³

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Dolgotrajna, sistemski učinek
Strokovni delavec: 0.15 mg/kg; Uporabnik: 0.075 mg/kg

Način izpostavitve: Dermalno, človek; Pogostost izpostavitve: Kratkotrajna, sistemski učinek
Strokovni delavec: 0.6 mg/kg; Uporabnik: 0.075 mg/kg

8.2 Nadzor izpostavljenosti

Poskrbite za ustrezno prezračevanje. Kadar je to izvedljivo, je to mogoče doseči z uporabo nadomestnega prezračevanja in dobrim splošnim vsesavanjem.

Zaščita oči:

Očala s stranskimi varovali (EN 166).

Zaščita kože:

Uporabljajte oblačila, primerna za popolno zaščito kože glede na dejavnost in izpostavljenost (EN 14605/EN 13982), npr. delovni kombinezon, predpasnik, zaščitna obutev, primerna oblačila.

Zaščita rok:

Ni materiala ali kombinacije materialov za rokavice, ki bi lahko zagotovili neomejeno odpornost na katero koli kombinacijo kemikalij ali proizvodov.

Za daljše ali večkratno rokovanje uporabite rokavice, odporne na kemikalije.

Ustrezne rokavice tipa (EN 374/EN 16523); FKM (Fluórkaučuk): debelina ≥ 0.4 mm; permeacijski čas ≥ 480 min. NBR (Nitrilkaučuk): debelina ≥ 0.4 mm; permeacijski čas ≥ 480 min

Izbira primernih rokavic ni odvisna samo od materiala, temveč tudi od drugih kakovostnih lastnosti, ki se razlikujejo od enega do drugega proizvajalca, in od načinov ter časov uporabe mešanice.

Zaščita dihalnih poti:

Če so delavci izpostavljeni koncentracijam nad mejnimi vrednostmi izpostavljenosti, morajo uporabljati primerne, certificirane dihalne aparate.

Kombinirana filtrirna naprava (EN 14387): maska s filtrom A-P2.

Nadzor izpostavljenosti okolja:

Glejte točko 6.2

Higienski in tehnični ukrepi

Glejte poglavje 7.

ODDELEK 9: Fizikalne in kemijske lastnosti

9.1 Podatki o osnovnih fizikalnih in kemijskih lastnostih

Izgled: pastozna tekočina

Barva: temno rjav

Vonj: amin

Tališče/ledišče: N.D.

Vrelišče ali začetno vrelišče in območje vrelišča: N.D.

Vnetljivost: ni znano

Spodnja in zgornja meja eksplozivnosti: N.D.

Plamenišče: $> 93^{\circ}\text{C}$

Temperatura samovžiga: N.D.

Temperatura razgradnje: N.D.

pH: ni znano (Ne pride v poštev zaradi narave proizvoda)

Kinematična viskoznost: $> 20.5 \text{ mm}^2/\text{s}$ (40°C)

Gostota in/ali relativna gostota: 1,2 - 1,3 kg/l (Interna metoda)

Relativna parna gostota: N.D.

Parni tlak: N.D.

Topnost v vodi: ni znano

Topnost v olju: ni znano

Porazdelitveni koeficient n-oktanol/voda (logaritemska vrednost): ni znano

Lastnosti delcev:

Velikost delcev: ni znano

9.2 Drugi podatki

Prevodnost: N.D.

Eksplozivne lastnosti: ni znano (Notranja evalvacija)

Oksidativne lastnosti: ni znano (Notranja evalvacija)

Hitrost izparevanja: ni znano

ODDELEK 10: Obstojnost in reaktivnost

10.1 Reaktivnost

Stabilna v normalnih pogojih

10.2 Kemijska stabilnost

Stabilna v normalnih pogojih

10.3 Možnost poteka nevarnih reakcij

V stiku z močnimi oksidatorji se lahko vname.

V stiku z osnovnimi kovinami (alkalijske kovine in zemeljskoalkalijske kovine), oksidativnimi mineralnimi kislinami, halogeniranimi organskimi snovmi, organskimi peroksidi in hidroperoksidi, močnimi oksidanti, močnimi reduktorji lahko tvorijo vnetljive in/ali strupene pline.

10.4 Pogoji, ki se jim je treba izogniti

Izogibajte se bližini toplotnih virov.

10.5 Nezdružljivi materiali

Glejte točko 10.3

10.6 Nevarni produkti razgradnje

V primeru pravilnega skladiščenja in ravnanja ne pride do razvoja nevarnih produktov razgradnje.

Glejte točko 5.2

ODDELEK 11: Toksikološki podatki

11.1 Podatki o razredih nevarnosti, kakor so opredeljeni v Uredbi (ES) št. 1272/2008

Toksikološki podatki izdelka:

a) akutna strupenost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
b) jedkost za kožo/draženje kože	Proizvod je razvrščen: Skin Irrit. 2(H315)
c) resne okvare oči/draženje	Proizvod je razvrščen: Eye Dam. 1(H318)
d) preobčutljivost pri vdihavanju in preobčutljivost kože	Proizvod je razvrščen: Skin Sens. 1(H317)
e) mutagenost za zarodne celice	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
f) rakotvornost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
g) strupenost za razmnoževanje	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
h) STOT - enkratna izpostavljenost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
i) STOT - ponavljajoča se izpostavljenost	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
j) nevarnost pri vdihavanju	Ni klasificirano Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.

Toksikološki podatki glavnih snovi, ki jih najdemo v izdelku:

Reakcijski produkt maščobnih kislin, C18 alkil z amini, polietilen-tetraetilenpentamin frakcija

a) akutna strupenost	LD50 Oralno Podgana > 2000 mg/kg LD50 Koža Podgana > 2000 mg/kg
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Maščobne kisline, C18-nesatd., dimeri, polimerni reakcijski produkti z maščobnimi kislinami iz visokih olj in trietilentetramin

CAS: 68082-29-1	a) akutna strupenost	LD50 Oralno Podgana > 2000 LD50 Koža Podgana > 2000
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2,4,6-tris(dimetilaminometil)fenol

CAS: 90-72-2	a) akutna strupenost	ATE - Oralno: 500 mg/kg tt LD50 Koža Podgana > 1 mg/kg 6h
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3-aminometil-3,5,5-trimetilcikloheksilamin

CAS: 2855-13-2	a) akutna strupenost	ATE - Oralno: 1030 mg/kg tt
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11.2 Podatki o drugih nevarnostih

Lastnosti endokrinih motilcev:

Ni endokrinih motilcev v koncentraciji $\geq 0,1\%$.

ODDELEK 12: Ekološki podatki

Uporabljajte v skladu z dobrimi delovnimi navadami, izogibajte se odlaganju izdelka v okolju.

12.1 Strupenost

Ekotoksikološki podatki:

Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Ekotoksikoloških lastnosti izdelka

Seznam sestavin z ekotoksikološkimi lastnostmi

Reakcijski produkt maščobnih kislin, C18 alkil z amini, polietilen-tetraetenpentamin frakcija

- a) akutna strupenost za vodno okolje: LC50 Riba 7.07 mg/l 96h
- a) akutna strupenost za vodno okolje: EC50 Vodna bolha 5.18 mg/l 48h
- a) akutna strupenost za vodno okolje: EC50 Alge 2.63 mg/l 72h
- b) kronična strupenost za vodno okolje: NOEC Riba 5 mg/l
- b) kronična strupenost za vodno okolje: NOEC Alge 0.5 mg/l

Maščobne kisline, C18-nesatd., dimeri, polimerni reakcijski produkti z maščobnimi kislinami iz visokih olj in trietilentetramin

- CAS: 68082-29-1
- a) akutna strupenost za vodno okolje: LC50 Riba 7.07 mg/l 96h
 - a) akutna strupenost za vodno okolje: EC50 Vodna bolha 5.18 mg/l 48h
 - a) akutna strupenost za vodno okolje: EC50 Alge 2.63 mg/l 72h
 - b) kronična strupenost za vodno okolje: NOEC Riba 5 mg/l
 - b) kronična strupenost za vodno okolje: NOEC Alge 0.5 mg/l

2,4,6-tris(dimetilaminometil)fenol

- CAS: 90-72-2
- a) akutna strupenost za vodno okolje: LC50 Riba 175 mg/l 96h
 - a) akutna strupenost za vodno okolje: LC50 Vodna bolha 718 mg/l 96h
 - a) akutna strupenost za vodno okolje: ErC50 Alge 84 mg/l 72h
 - a) akutna strupenost za vodno okolje: NOEC Alge 6.25 mg/l 72h

3-aminometil-3,5,5-trimetilcikloheksilamin

- CAS: 2855-13-2
- a) akutna strupenost za vodno okolje: LC50 Riba 110 mg/l 96h
 - a) akutna strupenost za vodno okolje: EC50 Vodna bolha 23 mg/l 48h
 - a) akutna strupenost za vodno okolje: EC50 Alge > 50 mg/l 72h

12.2 Obstočnost in razgradljivost

Reakcijski produkt maščobnih kislin, C18 alkil z amini, polietilen-tetraetenpentamin frakcija

Neobstočno in biološko razgradljivo

Maščobne kisline, C18-nesatd., dimeri, polimerni reakcijski produkti z maščobnimi kislinami iz visokih olj in trietilentetramin

CAS: 68082-29-1 Ni hitro razgradljivo

2,4,6-tris(dimetilaminometil)fenol

CAS: 90-72-2 Ni hitro razgradljivo

3-aminometil-3,5,5-trimetilcikloheksilamin

CAS: 2855-13-2 Ni hitro razgradljivo

12.3 Zmožnost kopičenja v organizmih

ni znano

12.4 Mobilnost v tleh

ni znano

12.5 Rezultati ocene PBT in vPvB

Na podlagi razpoložljivih podatkov, preparat ne vsebuje snovi PBT/vPvB v procentu \geq 0.1%.

12.6 Lastnosti endokrinih motilcev

Ni endokrinih motilcev v koncentraciji $> = 0,1\%$.

12.7 Drugi škodljivi učinki

ni znano

ODDELEK 13: Odstranjevanje

13.1 Metode ravnanja z odpadki

Če je mogoče, predelajte. Pošljite v usposobljena odlagališča ali v zažig pod kontroliranimi pogoji. Ravajte se po lokalnih in državnih normah.

Ne dopustite, da pride v kanalizacijo ali vodne poti.

Odstraniti posode, ki jih kontaminira izdelka v skladu z lokalnimi ali nacionalnimi predpisi.

Ko izdelku poteče življenjska doba, ga odstranite v skladu z veljavno zakonodajo.

ODDELEK 14: Podatki o prevozu

Blago ni nevarno smislu normativ o transportu.

14.1 Številka ZN in številka ID

N/A

14.2 Pravilno odpremno ime ZN

ADR-uradno ime blaga: N/A

IATA-uradno ime blaga: N/A

IMDG-uradno ime blaga: N/A

14.3 Razredi nevarnosti prevoza

ADR-Razred: N/A

IATA-razred: N/A

IMDG-razred: N/A

14.4 Skupina embalaže

ADR-embalažna skupina: N/A

IATA-embalažna skupina: N/A

IMDG-embalažna skupina: N/A

14.5 Nevarnosti za okolje

Onesnaževalec morja: Ne

Onesnažuje okolje po: Ne

IMDG-EMS: N/A

14.6 Posebni previdnostni ukrepi za uporabnika

Cestni in železniški transport (ADR-RID):

ADR izvzeto:

ADR-nalepka nevarnosti: N/A

ADR - Identifikacijska številka nevarnosti: N/A

ADR-posebni ukrepi: N/A

ADR-Pravilnik o cestnem prevozu nevarnega blaga:

Zračni transport (IATA):

IATA-potniška letala: N/A

IATA-tovorna letala: N/A

IATA-nalepka: N/A

IATA-dodatne nevarnosti: N/A

IATA-Erg: N/A

IATA-posebni ukrepi: N/A

Morski transport (IMDG):

IMDG-Zlaganje in ravnanje: N/A

IMDG-Segregacija: N/A

IMDG-dodatne nevarnosti: N/A

IMDG-posebni ukrepi: N/A

14.7 Pomorski prevoz v razsutem stanju v skladu z instrumenti IMO

ni znano

ODDELEK 15: Zakonsko predpisani podatki

15.1 Predpisi/zakonodaja o zdravju, varnosti in okolju, specifični za snov ali zmes

Dir. 98/24/ES (Varovanje delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu)

Dir. 2000/39/ES (mejne vrednosti za poklicno izpostavljenost)

Direktiva 2010/75/EU

Uredba (ES) št. 1907/2006 (REACH)

Uredba (ES) št. 1272/2008 (CLP)

Uredba (ES) št. 790/2009 (1. ATP CLP) in (EU) št. 758/2013

Uredba (EU) 2020/878

Uredba (EU) št. 286/2011 (2. ATP CLP)

Uredba (EU) št. 618/2012 (3. ATP CLP)

Uredba (EU) št. 487/2013 (4. ATP CLP)

Uredba (EU) št. 944/2013 (5. ATP CLP)

Uredba (EU) št. 605/2014 (6. ATP CLP)

Uredba (EU) 2015/1221 (7. ATP CLP)

Uredba (EU) 2016/918 (8. ATP CLP)

Uredba (EU) 2016/1179 (9. ATP CLP)

Uredba (EU) 2017/776 (10. ATP CLP)

Uredba (EU) 2018/669 (11. ATP CLP)

Uredba (EU) 2018/1480 (13. ATP CLP)
Uredba (EU) 2019/521 (12. ATP CLP)
Uredba (EU) 2020/217 (14. ATP CLP)
Uredba (EU) 2020/1182 (15. ATP CLP)
Uredba (EU) 2021/643 (16. ATP CLP)
Uredba (EU) 2021/849 (17. ATP CLP)
Uredba (EU) 2022/692 (18. ATP CLP)

Omejčitve, povezane z izdelkom ali vsebovanimi snovmi, v skladu s Prilogo XVII Uredbe (ES) 1907/2006 (REACH) in poznejše spremembe:

Obmedzenia vo vzťahu s výrobkom: 3
Obmedzenia vo vzťahu s obsiahnutými látkami: 75

Določbe v zvezi z direktivo EU 2012/18 (Seveso III)

Nobena

Uredba (EU) št. 649/2012 (uredba PIC)

Snovi niso navedene

Nemški razred nevarnosti za vodo.

Razred 3: izjemno nevarna.

SVHC snovi:

Na podlagi razpoložljivih podatkov, preparat ne vsebuje snovi SVHC v procentu $\geq 0.1\%$.

15.2 Ocena kemijske varnosti

Ocena kemijske varnosti ni bila opravljena za mešanice

ODDELEK 16: Drugi podatki

Številka	Opis
H302	Zdravju škodljivo pri zaužitju.
H314	Povzroča hude opekline kože in poškodbe oči.
H315	Povzroča draženje kože.
H317	Lahko povzroči alergijski odziv kože.
H318	Povzroča hude poškodbe oči.
H319	Povzroča hudo draženje oči.
H411	Strupeno za vodne organizme, z dolgotrajnimi učinki.
H412	Škodljivo za vodne organizme, z dolgotrajnimi učinki.

Številka	Razred in kategorija nevarnosti	Opis
3.1/4/Oral	Acute Tox. 4	Akutna strupenost (oralno), Kategorija 4
3.2/1B	Skin Corr. 1B	Jedkost za kožo, Kategorija 1B
3.2/2	Skin Irrit. 2	Draženje kože, Kategorija 2
3.3/1	Eye Dam. 1	Hude poškodbe oči, Kategorija 1
3.3/2	Eye Irrit. 2	Draženje oči, Kategorija 2
3.4.2/1	Skin Sens. 1	Preobčutljivost kože, Kategorija 1
3.4.2/1A	Skin Sens. 1A	Preobčutljivost kože, Kategorija 1A
4.1/C2	Aquatic Chronic 2	Kronično (dolgotrajno) nevarnost za vodno okolje, Kategorija 2
4.1/C3	Aquatic Chronic 3	Kronično (dolgotrajno) nevarnost za vodno okolje, Kategorija 3

Razvrstitev in postopek, uporabljen za izpeljavo razvrstitve za zmesi v skladu z Uredbo (ES) 1272/2008 [uredba CLP]:

Razvrstitev v skladu z Uredbo (ES) št. 1272/2008	Postopek razvrščanja
Skin Irrit. 2, H315	metoda izračuna
Eye Dam. 1, H318	metoda izračuna
Skin Sens. 1, H317	metoda izračuna
Aquatic Chronic 3, H412	metoda izračuna

Ta dokument je pripravila pristojna oseba, ki je ustrezno usposobljena
Glavni bibliografski viri:

ECDIN – Informacijska mreža za okoljske podatke za kemikalije – Skupno raziskovalno središče, Komisija Evropskih skupnosti
SAX – NEVARNE LASTNOSTI INDUSTRIJSKIH MATERIALOV – 8. izdaja – Van Nostrand Reinold
Varnostni listi dobaviteljev surovin.

Predstavljene informacije se nanašajo na naše znanje v zgoraj navedenem datumu. Nanašajo se zgolj na omenjeni izdelek in ne

predstavljajo garancije za posebno kakovost.

Uporabnik je dolžan preveriti pravilnost in popolnost teh informacij glede na svojo specifično uporabo.

Ta list razveljavlja in nadomešča vsako predhodno izdajo

Legenda okrajšav in kratic, uporabljenih v varnostnem listu:

ACGIH: Ameriška konferenca vladnih industrijskih higienikov
ADR: Evropski sporazum o mednarodnem prevozu nevarnih snovi v cestnem prometu.
ATE: Ocena akutne strupenosti
ATEmix: Ocena akutne strupenosti (Zmesi)
BEI: Biološki indeks izpostavljenosti
CAS: Chemical Abstracts Service (oddelek Ameriškega kemijskega društva).
CAV: Center za zastupitve
CE: Evropska skupnost
CLP: Razvrščanje, etiketiranje, pakiranje.
CMR: Rakotvorno, mutageno in strupeno za razmnoževanje
COV: Hlapna organska spojina
CSA: Ocena kemijske varnosti
CSR: Poročilo o kemijski varnosti
DNEL: Izpeljane vrednosti brez učinka.
EC50: Srednja učinkovita koncentracija
ECHA: Evropska agencija za kemikalije
EINECS: Evropski seznam obstoječih snovi.
ES: Scenarij izpostavljenosti
GefStoffVO: Odlok o nevarnih snoveh, Nemčija.
GHS: Globalno poenoten sistem razvrščanja in označevanja nevarnih kemikalij.
IARC: Mednarodna agencija za raziskovanje raka
IATA: Mednarodno združenje za zračni transport.
IC50: Srednja inhibitorna koncentracija
IMDG: Mednarodni kodeks za prevoz nevarnega blaga po morju
LC50: Letalna koncentracija za 50 odstotkov testne populacije.
LD50: Letalna doza za 50 odstotkov testne populacije.
LDLo: Najnižja smrtna doza
N.A.: Se ne uporablja
N/A: Se ne uporablja
N/D: Ni opredeljeno/Ni razpoložljiv
N.D.: Ni razpoložljiv
NIOSH: Nacionalni inštitut za varnost in zdravje pri delu
NOAEL: Raven brez opaznih negativnih vplivov
OSHA: Upravljanje varnosti in zdravja pri delu
PBT: Obstojne, se kopičijo v organizmih in so strupene
PGK: Navodila za embalažo nevarnih snovi
PNEC: Predvidena koncentracija brez učinka.
PSG: Potniki
RID: Pravilnik o mednarodnem prevozu nevarnega blaga po železnici.
STEL: Meja za kratkotrajno izpostavljenost.
STOT: Specifično strupeno za ciljne organe.
TLV: Mejna vrednost izpostavljenosti.
TLV-TWA: Mejna vrednost izpostavljenosti v časovnem obdobju po 8 ur dnevno (ACGIH standard).
vPvB: Telo obstojno, se zelo lahko kopiči v organizmih.
WGK: Nemški razred nevarnosti za vodo.

Odstavki spremenjeni od prejšnje revizije:

- ODDELEK 2: Določitev nevarnosti
- ODDELEK 6: Ukrepi o nenamernih izpustih
- ODDELEK 8: Nadzor izpostavljenosti/osebna zaščita
- ODDELEK 9: Fizikalne in kemijske lastnosti
- ODDELEK 11: Toksikološki podatki
- ODDELEK 12: Ekološki podatki
- ODDELEK 13: Odstranjevanje
- ODDELEK 14: Podatki o prevozu
- ODDELEK 16: Drugi podatki

2,4,6-tris(dimethylaminomethyl)phenol

Substance identification

Chemical Name: 2,4,6-tris(dimethylaminomethyl)phenol

CAS number: 90-72-2

EU index number: 603-069-00-0

EINECS number: 202-013-9

INDUSTRIAL APPLICATION OF COATINGS AND PAINTS - INDUSTRIAL USE

1. TITLE SECTION

Exposure scenario name: Industrial application of coatings and paints

Date - Version: 16/03/2020 - 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 Roller, spray and stream application: PROC10

2. CONTRIBUTIVE SCENARIOS

2.1. Contributing Scenario CS1 - Environment: 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 ≤ 0.8 tons/day

Annual amount per site ≤ 20 tons/year

Release Type: Continuous release

Issue days: 220 days a year

Measures and technical-organizational conditions

Control measures to prevent releases: No substance input into waste water.

Conditions and measures relating to municipal sewage treatment plants

Type of sewage treatment plant (STP): Municipal STP

STP effluent (m³/day): 2000

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

Waste treatment: Collect and dispose of waste in accordance with local regulations. Refer to section 13.

Other operational conditions affecting environmental exposure

Flow rate of receiving surface water: 18000 m³/day

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

Further information on good practices: For further data, see section 8 of the safety data sheet.

2.2. CS2 Contributing Scenario - Worker: Roller, spray and flow application (PROC10)

Process categories: Roller and brush application (PROC10)

Product features (article)

Physical form of the product: Liquid

Vapor pressure: 0,075 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: Covers up to 8 hours of daily exposure.

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). Inhalation - minimum 30% efficiency. Local aspiration system. Ensure operating personnel are trained to minimize exposure. Inhalation - minimum 90% efficiency.

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

Personal protective equipment:

During the specific training wear gloves resistant to chemicals (tested according to EN 374). Dermal - minimum 95% efficiency. Wear full face respirator conforming to EN136. Inhalation - minimum 99% efficiency. Wear waterproof clothing. Dermal - 97% minimum efficiency. For further data, see section 8 of the safety data sheet.

Other operational conditions affecting worker exposure

Temperature: A process temperature of up to 40°C is assumed.

Body parts exposed: Possible skin contact is believed to be limited to the hands.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.1. Contributing Scenario CS1 - Environment: Wet polymerization (ERC5)

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	0.001 mg/l	EUSES	0.017
fresh water sediment	0.006 mg/kg	EUSES	< 1
sea water	0.000138 mg/l	EUSES	0.016
Marine sediment	0.000564 mg/kg	EUSES	< 1
ground	0.001 mg/kg	EUSES	< 1
sewage treatment plant	0 mg/l	EUSES	< 0.01
environmentally exposed people - Inhalation	2.5E-05 mg/l	EUSES	< 1

3.2. CS2 Contributing Scenario - Worker: Roller, spray and flow application (PROC10)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.046 mg/m ³	chesar v 2.2	0.357
by inhalation, systemic, short-term	0.186 mg/m ³	chesar v 2.2	0.357
skin contact, systemic, long-term	0.025 mg/kg bw/day	chesar v 2.2	0.164
combined routes, systemic, long-term	N.d.	chesar v 2.2	0.521

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: 16/03/2020 - 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, spray and stream application: PROC10

2. CONTRIBUTIVE SCENARIOS

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

Environmental release categories: Widespread use resulting in 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

Amounts used: Quantity per use ≤ 0.000218 tons/year

Measures and technical-organizational conditions

Control measures to prevent releases: No entry of substance into waste water.

Conditions and measures relating to municipal sewage treatment plants

Type of sewage treatment plant (STP): Municipal STP Water - minimum efficiency of 0.059%.

STP effluent (m³/day): 2000

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

Waste treatment: Collect and dispose of waste in accordance with local regulations. Refer to section 13.

Other operational conditions affecting environmental exposure

Flow rate of receiving surface water: 18000 m³/day

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

Further information on good practices: For further data, see section 8 of the safety data sheet.

2.2. CS2 Contributing Scenario - Worker: Roller, spray and flow application (PROC10)

Process categories: Roller and brush application (PROC10)

Product features (article)

Physical form of the product: Liquid

Vapor pressure: 0,075 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: Includes use 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). Inhalation - minimum 30% efficiency.

Local aspiration system. Ensure operating personnel are trained to minimize exposure. Inhalation - minimum 80% efficiency.

Provide supplementary ventilation and other openings. Inhalation - minimum efficiency of 44%.

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

Personal protective equipment:

During the specific training wear gloves resistant to chemicals (tested according to EN 374). Dermal - minimum 90% efficiency.

Wear full face respirator conforming to EN136. Inhalation - minimum 99% efficiency.

Wear waterproof clothing. Dermal - 97% minimum efficiency.

For further data, see section 8 of the safety data sheet.

Other operational conditions affecting worker exposure

Indoor use.

Temperature: A process temperature of up to 40°C is assumed.

Body parts exposed: Possible skin contact is believed to be limited to the hands.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

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

Protection target	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
fresh water	0.002 mg/l	EUSES	0.018
fresh water sediment	0.006 mg/kg	EUSES	< 1
sea water	0.000149 mg/l	EUSES	0.018
Marine sediment	0.000608 mg/kg	EUSES	< 1
ground	0.001 mg/kg	EUSES	< 1
sewage treatment plant	0.001 mg/l	EUSES	< 0.01
environmentally exposed people - Inhalation	1.03E-08 mg/l	EUSES	< 1

3.2. CS2 Contributing Scenario - Worker: Roller, spray and flow application (PROC10)

Route of Exposure, Impact on Health, Exposure Indicator	Degree of exposure	Calculation method	Risk characterization ratio (RCR)
by inhalation, systemic, long-term	0.078 mg/m ³	chesar v 2.2	0.599
by inhalation, systemic, short-term	0.52 mg/m ³	chesar v 2.2	1
skin contact, systemic, long-term	0.049 mg/kg bw/day	chesar v 2.2	0.329
combined routes, systemic, long-term	N.d.	chesar v 2.2	0.928

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.

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 (m³/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/m ³	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/m ³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m ³	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/m ³	ECETOC TRA worker v2.0	0.106
by inhalation, systemic, short-term	2,129 mg/m ³	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/m ³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m ³	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/m ³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m ³	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 (m³/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/m ³	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/m ³	ECETOC TRA worker v2.0	0.353
by inhalation, systemic, short-term	7,096 mg/m ³	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/m ³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m ³	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/m ³	ECETOC TRA worker v2.0	0.706
by inhalation, systemic, short-term	14,192 mg/m ³	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/m ³	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.