ODJELJAK 1.: Identifikacija tvari/smjese i podaci o društvu/poduzeću

1.1. Identifikacijska oznaka proizvoda

Identifikacija preparata:

Trgovačko ime: FASSAFILL EPOXY CLEANER
Trgovački kod: 1292
UFI: C8QX-QSHM-J6ER-99YM

1.2. Utvrđene relevantne uporabe tvari ili smjese i uporabe koje se ne preporučuju

Preporučana upotreba: Sredstvo za uklanjanje ostataka epoksidne mase za kitanje; Samo za stručno upotrebljavanje
Nepreporučljiva upotreba: Nije namijenjeno potrošačima

1.3. Podaci o dobavljaču koji isporučuje sigurnosno-tehnički list

Tvrtka: FASSA Srl
Via Lazzaris, 3 - 31027 Spresiano (TV) - ITALY
Tel. +39 0422 7222
Fax +39 0422 887509

Odgovorna osoba: laboratorio.spresiano@fassabortolo.it

1.4. Broj telefona za izvanredna stanja

+3851 2348 342

ODJELJAK 2.: Identifikacija opasnosti



2.1. Razvrstavanje tvari ili smjese

Uredba (EC) br. 1272/2008 (CLP)

Eye Irrit. 2	Uzrokuje jako nadraživanje oka.
Skin Sens. 1	Može izazvati alergijsku reakciju na koži.

Fizikalno-kemijski učinci štetni po ljudsko zdravlje i okoliš:
Nema ostalih rizika

2.2. Elementi označivanja

Uredba (EC) br. 1272/2008 (CLP):

Piktogrami i oznaka opasnosti



Upozorenje

Oznake upozorenja

H317	Može izazvati alergijsku reakciju na koži.
H319	Uzrokuje jako nadraživanje oka.

Oznake obavijesti

P261	Izbjegavati udisanje dima/plina/magle/pare/aerosola.
P280	Nositi zaštitne rukavice te zaštitu za oči/zaštitu za lice.
P333+P313	U slučaju nadražaja ili osipa na koži: zatražiti savjet/pomoć liječnika.
P337+P313	Ako nadražaj oka ne prestaje: zatražiti savjet/pomoć liječnika.
P362+P364	Skinuti zagađenu odjeću i oprati je prije ponovne uporabe.
P501	Odložiti sadržaj/spremnik u skladu s nacionalnim propisima.

Sadrži:

benzil-alkohol

Posebne odredbe prema Prilogu XVII REACH-a i naknadnih amandmana:

Niti jedan

2.3. Ostale opasnosti

Sastojcima (UREDBA (EZ) br. 648/2004): 5 - 15% anionske površinski aktivne tvari

Bez PBT-a, vPvB-a ili endokrinih disruptora prisutnih
u koncentraciji > = 0,1 %.

Nema ostalih rizika

ODJELJAK 3.: Sastav/informacije o sastojcima

3.1. Tvari

Ne primjenjuje se.

3.2. Smjese

Identifikacija preparata: FASSAFILL EPOXY CLEANER

Opasni sastojci u smislu CLP Uredbe koja se odnosi na razvrstavanje:

Količina	Naziv	Ident. Broj.	Klasifikacija	Broj registriranih slučajeva:
≥15 - <20 %	benzil-alkohol	CAS:100-51-6 EC:202-859-9 Index:603-057-00-5	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Procjena akutne toksičnosti: ATE - Oralno: 1200mg/kg t.m.	01-2119492630-38-xxxx
≥7 - <10 %	1-metoksi-2-propanol	CAS:107-98-2 EC:203-539-1 Index:603-064-00-3	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119457435-35-xxxx
≥1 - <2.5 %	2,2'-butiliminodietanol	CAS:102-79-4 EC:203-055-0	Eye Dam. 1, H318	01-2120124239-60-xxxx

ODJELJAK 4.: Mjere prve pomoći

4.1. Opis mjera prve pomoći

U slučaju kontakta sa kožom:

Smjesta skinuti zagađenu odjeću i ukloniti je na bezbjedan način.

Odmah oprati obilnom količinom tekuće vode i eventualno sapunom dijelove tijela koji su došli u dodir s proizvodom, čak i u slučaju da samo sumnjate da je došlo do kontakta.

Oprati čitavo tijelo (istuširati se ili okupati).

U slučaju kontakta sa očima:

U slučaju kontakta sa očima, ispirati oči vodom neko vrijeme, držati otvorene kapke, a potom zatražiti pomoć oftalmologa.

Zaštititi neozlijeđeno oko.

U slučaju gutanja:

Ne poticati povraćanje, obratiti se liječniku i pokazati listić o sigurnosti i oznaku kemijskog rizika.

U slučaju udisanja:

Izloženu osobu treba iznijeti na svježi zrak, držati je na toplom, a ista mora mirovati.

4.2. Najvažniji simptomi i učinci, akutni i odgođeni

Simptomi i ucinci su u skladu s ocekivanjima od opasnosti kako je prikazano u 2. odjeljku.

4.3. Navod o potrebi za hitnom liječničkom pomoći i posebnom obradom

U slučaju nesreće ili slabosti smjesta se obratiti liječniku (ako je moguće, pokazati upute za uporabu ili sigurnosni list).

ODJELJAK 5.: Mjere za suzbijanje požara

5.1. Sredstva za gašenje

Prikladna sredstva za gašenje požara:

Proizvod nije zapaljiv

Sredstva za gašenje požara koja ne treba koristiti iz bezbijednosnih razloga:

Nijedno posebno.

5.2. Posebne opasnosti koje proizlaze iz tvari ili smjese

Sagorijevanjem se oslobađaju teški dimovi.

U slučaju požara i/ili eksplozije, ne udisati dimne plinove.

5.3. Savjeti za gasitelje požara

Koristiti prikladne dišne aparate.

Posebno pokupiti zaprljanu vodu, koja je korištena za gašenje požara. Ne bacati ovu vodu u kanalizacionu mrežu.

Neoštećene spremnike skloniti iz prostora neposredne opasnosti, ukoliko se to može izvršiti na bezbjedan način.

ODJELJAK 6.: Mjere kod slučajnog ispuštanja

6.1. Osobne mjere opreza, zaštitna oprema i postupci za izvanredna stanja

Za osobe koje se ne ubrajaju u interventno osoblje:

Koristiti sredstva za osobnu zaštitu.

Ukloniti osobe na sigurno mjesto.

Konzultirati mjere zaštite opisane u točkama 7. i 8.

Za interventno osoblje:

Koristiti sredstva za osobnu zaštitu.

6.2. Mjere zaštite okoliša

Spriječiti prodiranje u tlo/dublje slojeve zemlje. Spriječiti ulivanje u površinske vode ili u kanalizacionu mrežu.

U slučaju izlaska plina ili prodiranja u vodene tokove, tlo ili kanalizacionu mrežu, obavijestiti nadležna tijela.

6.3. Metode i materijal za sprečavanje širenja i čišćenje

Materijal je prikladan za skupljanje: inertni upijajući materijal (npr. pijesak, vermikulit)

Nakon što je proizvod sakupljen, isprati onečišćeno područje i predmete s vodom.

Zadržati vodu kojom ste izvršili pranje, pa je eliminirati.

6.4. Uputa na druge odjeljke

Pogledati također i paragrafe 8. i 13.

ODJELJAK 7.: Rukovanje i skladištenje

7.1. Mjere opreza za sigurno rukovanje

Izbjegavati dodir s kožom i očima, udisanje para i maglica.

Ne koristite prazne spremnike prije no što ih očistite.

Prije prijenosa proizvoda, uvjeriti se da u spremnicima nema ostataka nekompatibilnih tvari.

Savjeti o općoj higijeni na radnom mjestu:

Kontaminirana odjeća se smjesta mora zamijeniti prije ulaska u menze.

Ne konzumirati hranu i piće na radnom mjestu.

Pogledati i paragraf 8. u svezi sa preporučanim napravama za zaštitu.

7.2. Uvjeti sigurnog skladištenja, uzimajući u obzir moguće inkompatibilnosti

Čuvati spremnike dobro zatvorene na hladnom i dobro prozračenom mjestu daleko od izvorā topline.

Držati podalje od hrane, pića i krmiva.

Inkompatibilne tvari:

Vidi točku 10.5

Upute za prostorije za skladištenje:

Adekvatno prozračene prostorije.

Zaštititi od smrzavanja.

7.3. Posebna krajnja uporaba ili uporabe

Preporuke

Vidi točku 1.2

Specifične otopine za industrijski sektor

Nema posebne upotrebe

ODJELJAK 8.: Nadzor nad izloženošću/osobna zaštita

8.1. Nadzorni parametri

Granične vrijednosti izloženosti na mjestu rada

benzil-alkohol

CAS: 100-51-6	OEL Tip	MAK	Njemačka	Dugoročno 22 mg/m3 - 5 ppm; Kratkoročno 44 mg/m3 - 10 ppm Napomene: Inhalable fraction and vapour, Skin
	OEL Tip	TLV	Bugarska	Dugoročno 5 mg/m3
	OEL Tip	TLV	Češka	Dugoročno 40 mg/m3 - 8.88 ppm; Kratkoročno 80 mg/m3 - 17.76 ppm
	OEL Tip	SUVA	Švicarska	Dugoročno 22 mg/m3 - 5 ppm
	OEL Tip	AGW	Njemačka	Dugoročno 22 mg/m3 - 5 ppm; Kratkoročno 44 mg/m3 - 10 ppm Napomene: Inhalable fraction and vapour
	OEL Tip	NDS	Poljska	Dugoročno 240 mg/m3
	OEL Tip	MV	Slovenija	Dugoročno 22 mg/m3 - 5 ppm; Kratkoročno 44 mg/m3 - 10 ppm Napomene: Skin
	OEL Tip	IPRV	Litva	Dugoročno 5 mg/m3 Napomene: Skin

1-metoksi-2-propanol

CAS: 107-98-2	OEL Tip	ACGIH		Dugoročno 50 ppm; Kratkoročno 100 ppm Napomene: A4 - Eye and URT irr

OEL Tip	UE		Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 563 mg/m3 - 150 ppm Napomene: Skin
OEL Tip	MAK	Austrija	Dugoročno 187 mg/m3 - 50 ppm; Kratkoročno 187 mg/m3 - 50 ppm Napomene: Skin
OEL Tip	MAK	Njemačka	Dugoročno 370 mg/m3 - 100 ppm; Kratkoročno 740 mg/m3 - 200 ppm
OEL Tip	VLEP	Belgija	Dugoročno 184 mg/m3 - 50 ppm; Kratkoročno 369 mg/m3 - 100 ppm Napomene: Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.
OEL Tip	VLEP	Francuska	Dugoročno 188 mg/m3 - 50 ppm; Kratkoročno 375 mg/m3 - 100 ppm Napomene: Skin
OEL Tip	VLEP	Italija	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 568 mg/m3 - 150 ppm Napomene: Skin
OEL Tip	VLEP	Rumunjska	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 568 mg/m3 - 150 ppm
OEL Tip	TLV	Bugarska	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 568 mg/m3 - 150 ppm Napomene: Skin
OEL Tip	TLV	Češka	Dugoročno 270 mg/m3 - 72.09 ppm; Kratkoročno 550 mg/m3 - 146.85 ppm Napomene: Skin
OEL Tip	VLA	Španjolska	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 568 mg/m3 - 150 ppm Napomene: Skin
OEL Tip	ÁK	Mađarska	Dugoročno 375 mg/m3; Kratkoročno 568 mg/m3 Napomene: Skin
OEL Tip	MAC	Nizozemska	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 563 mg/m3 - 150 ppm Napomene: Skin
OEL Tip	VLE	Portugal	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 568 mg/m3 - 150 ppm
OEL Tip	SUVA	Švicarska	Dugoročno 360 mg/m3 - 100 ppm; Kratkoročno 720 mg/m3 - 200 ppm
OEL Tip	WEL	U.K.	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 560 mg/m3 - 150 ppm Napomene: Skin
OEL Tip	GVI	Hrvatska	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 568 mg/m3 - 150 ppm
OEL Tip	AGW	Njemačka	Dugoročno 370 mg/m3 - 100 ppm; Kratkoročno 740 mg/m3 - 200 ppm
OEL Tip	NDS	Poljska	Dugoročno 180 mg/m3; Kratkoročno 360 mg/m3 Napomene: Skin
OEL Tip	MV	Slovenija	Dugoročno 375 mg/m3 - 100 ppm; Kratkoročno 568 mg/m3 - 150 ppm Napomene: Skin
OEL Tip	IPRV	Litva	Dugoročno 190 mg/m3 - 50 ppm; Kratkoročno 300 mg/m3 - 75 ppm

Granične vrijednosti izloženosti PNEC

benzil-alkohol

CAS: 100-51-6

Putevi izloženosti: Svježa voda; PNEC Ograničiti: 1 mg/l

Putevi izloženosti: Morska voda; PNEC Ograničiti: 0.1 mg/l

Putevi izloženosti: Mikroorganizmi u postrojenjima za obradu otpadnih voda (STP); PNEC Ograničiti: 39 mg/l

Putevi izloženosti: Sedimenti svježe vode; PNEC Ograničiti: 5.27 mg/kg

Putevi izloženosti: Sedimenti morske vode; PNEC Ograničiti: 0.527 mg/kg

Putevi izloženosti: Zemlja; PNEC Ograničiti: 0.456 mg/kg

1-metoksi-2-propanol

CAS: 107-98-2

Putevi izloženosti: Morska voda; PNEC Ograničiti: 1 mg/l

Putevi izloženosti: Svježa voda; PNEC Ograničiti: 10 mg/l

Putevi izloženosti: Mikroorganizmi u postrojenjima za obradu otpadnih voda (STP); PNEC Ograničiti: 100 mg/l

Putevi izloženosti: Sedimenti morske vode; PNEC Ograničiti: 5.2 mg/kg

Putevi izloženosti: Sedimenti svježe vode; PNEC Ograničiti: 52.3 mg/kg

Putevi izloženosti: Tlo (poljoprivredno); PNEC Ograničiti: 4.59 mg/kg

2,2'-butiliminodietanol

CAS: 102-79-4 Putevi izloženosti: Svježa voda; PNEC Ograničiti: 0.44 mg/l

Putevi izloženosti: Morska voda; PNEC Ograničiti: 0.044 mg/l

Putevi izloženosti: Mikroorganizmi u postrojenjima za obradu otpadnih voda (STP); PNEC Ograničiti: 7.27 mg/l

Putevi izloženosti: Sedimenti svježe vode; PNEC Ograničiti: 2.024 mg/kg

Putevi izloženosti: Sedimenti morske vode; PNEC Ograničiti: 0.202 mg/kg

Putevi izloženosti: Zemlja; PNEC Ograničiti: 0.146 mg/kg

Izvedena razina bez učinka. (DNEL)

benzil-alkohol

CAS: 100-51-6 Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 22 mg/m3; Potrošač: 5.4 mg/m3

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Kratkotrajni, sistemski učinci
Profesionalni djelatnik: 110 mg/m3; Potrošač: 27 mg/m3

Putevi izloženosti: Ljudi dermalno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 8 mg/kg; Potrošač: 4 mg/kg

Putevi izloženosti: Ljudi dermalno; Učestalost izloženosti: Kratkotrajni, sistemski učinci
Profesionalni djelatnik: 40 mg/kg; Potrošač: 20 mg/kg

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Potrošač: 4 mg/kg

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Kratkotrajni, sistemski učinci
Potrošač: 20 mg/kg

1-metoksi-2-propanol

CAS: 107-98-2 Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 369 mg/m3; Potrošač: 43.9 mg/m3

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Kratkotrajni, lokalni učinci
Profesionalni djelatnik: 553.5 mg/m3

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Kratkotrajni, sistemski učinci
Profesionalni djelatnik: 553.5 mg/m3

Putevi izloženosti: Ljudi dermalno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 183 mg/kg; Potrošač: 78 mg/kg

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Potrošač: 3.3 mg/kg

2,2'-butiliminodietanol

CAS: 102-79-4 Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, sistemski učinci
djelatnik: 1.58 mg/m3; Potrošač: 0.281 mg/m3

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, lokalni učinci
djelatnik: 1.14 mg/m3; Potrošač: 0.34 mg/m3

Putevi izloženosti: Ljudi dermalno; Učestalost izloženosti: Dugotrajni, sistemski učinci
djelatnik: 7 mg/kg; Potrošač: 2.5 mg/kg

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Potrošač: 0.25 mg/kg

8.2. Nadzor nad izloženošću

Osigurati odgovarajuću ventilaciju. Kad je to razumno moguće, to se može postići upotrebom rezervne ventilacije i dobre opće aspiracije.

Zaštita očiju:

Čaše sa bočnom zaštitom (EN 16321).

Zaštita kože:

Upotrebljavati odjeću prikladnu za potpunu zaštitu kože u skladu s aktivnošću i izloženošću (EN 14605/EN 13982), npr. radne kombinezone, pregače, sigurnosnu obuću, prikladnu odjeću.

Zaštita za ruke:

Ne postoji materijal ili kombinacija materijala za rukavice koji bi mogli jamčiti neograničenu otpornost na bilo koji kemijski proizvod ili kombinaciju proizvoda.

Ako je riječ o duljem ili ponavljanom rukovanju, koristite se rukavicama otpornim na kemijske proizvode.

Prikladne rukavice tipa (EN 374/EN 16523); Butil guma (butil guma): debljina> = 0,4 mm; vrijeme prodiranja> = 480 min. NBR (nitrilna guma): debljina> = 0,4 mm; vrijeme prodiranja> = 480 min

Izbor prikladnih rukavica ne ovisi samo o materijalu, nego i o drugim karakteristikama kvalitete koje se razlikuju od proizvođača do

proizvođača, i o načinima i vremenu upotrebe smjese.

Zaštita pri disanju:

Ako su radnici izloženi koncentracijama višima od granice izloženosti, moraju upotrebljavati odgovarajuće certificirane respiratore.
Kombinirana filtrirajuća naprava (EN 14387): maska s filtrom A-P2.

Kontrola izlaganja u okolišu:

Vidi točku 6.2

Higijenske i tehničke mjere

Vidi odlomak 7.

ODJELJAK 9.: Fizikalna i kemijska svojstva

9.1. Informacije o osnovnim fizikalnim i kemijskim svojstvima

fizičko stanje: tekuće
Izgled: tekuće
Boja: svijetložuto
Miris: karakterističan
Prag mirisa: N.D.
Talište/ledište: N.D.
Vrelište ili početno vrelište i raspon temperatura vrenja: N.D.
Zapaljivost: nezapaljivo; ; Interna evaluacija
Donja i gornja granica eksplozivnosti: N.D.
Plamište: > 93°C (Interna evaluacija)
Temperatura samozapaljenja: N.D.
Temperatura raspadanja: N.D.
pH: >=10.90<=11.90 (Interna metoda)
Kinematička viskoznost: ≤ 20.5 mm²/s (40 °C)
Gustoća i/ili relativna gustoća: 1.01 ± 0.01 kg/l (Interna metoda)
Relativna gustoća pare: N.D.
Tlak pare: N.D.
Topljivost u vodi: može se miješati u svim izvješćima
Topljivost u ulje: Nema dostupnih podataka.
Koeficijent raspodjele n-oktanol/voda (logaritamska vrijednost): Ne primjenjuje se.

Svojstva čestica:

Veličina čestica: Ne primjenjuje se.

9.2. Ostale informacije

Vodljivost: N.D.
Explozivne osobine: N.D.
Osobine oksidiranja: N.D.
HOS % (2010/75/EZ): 28.00

ODJELJAK 10.: Stabilnost i reaktivnost

10.1. Reaktivnost

Stabilan u normalnim uvjetima

10.2. Kemijska stabilnost

Stabilan u normalnim uvjetima

10.3. Mogućnost opasnih reakcija

Nijedno.

10.4. Uvjeti koje treba izbjegavati

Čuvati odvojeno od izvorā topline.

10.5. Inkompatibilni materijali

Nema posebnih zabrana.

10.6. Opasni proizvodi raspadanja

Pri odgovarajućem skladištenju i rukovanju ne razvijaju se opasni proizvodi raspadanja.
Vidi točku 5.2

ODJELJAK 11.: Toksikološke informacije

11.1. Informacije o razredima opasnosti kako su definirani u Uredbi (EZ) br. 1272/2008

Podaci o toksičnosti proizvoda:

a) akutna toksičnost	Nije kategorizirano
	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
b) kožno nagrizanje/nadraživanje	Nije kategorizirano

	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
c) teške očne ozljede/teško očno nadraživanje	Proizvod je razvrstan kao: Eye Irrit. 2(H319)
d) izazivanje kožne ili dišne preosjetljivosti	Proizvod je razvrstan kao: Skin Sens. 1(H317)
e) mutagenost zametnih stanica	Nije kategorizirano
	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
f) kancerogenost	Nije kategorizirano
	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
g) reproduktivna toksičnost	Nije kategorizirano
	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
h) Specifična toksičnost za ciljne organe (STOT) jednokratno izlaganje	Nije kategorizirano
	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
i) Specifična toksičnost za ciljne organe (STOT) opetovano izlaganje	Nije kategorizirano
	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
j) opasnost u slučaju udisanja	Nije kategorizirano
	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.

Podaci o toksičnosti glavnih sastojaka u proizvodu:

benzil-alkohol

CAS: 100-51-6	a) akutna toksičnost	ATE - Oralno: 1200 mg/kg t.m.
		LD50 Udisanje Štakor > 4178 mg/m3 4h

1-metoksi-2-propanol

CAS: 107-98-2	a) akutna toksičnost	LD50 Oralno Štakor 4016 mg/kg
		LD50 Koža Štakor > 2000 mg/kg
		LC50 Udisanje pare Štakor > 7000 ppm 6h

2,2'-butiliminodietanol

CAS: 102-79-4	a) akutna toksičnost	LD50 Oralno Štakor 4800 mg/kg
		LD50 Koža Kunić > 2000 mg/kg

11.2. Informacije o drugim opasnostima

Svojstva endokrine disrupcije:

Bez drugih endokrinih disruptora prisutnih u koncentraciji > = 0,1 %

ODJELJAK 12.: Ekološke informacije

Primjeniti dobre radne postupke da se produkt ne oslobađa u okoliš.

12.1. Toksičnost

Eko-Toksikološke informacije:

Popis eko-toksikoloških svojstava proizvoda

Nije razvrstan kao opasan za okoliš

Nema raspoloživih podataka za proizvod

Popis sastojaka sa eko-toksikološkim svojstvima

benzil-alkohol

CAS: 100-51-6	a) Akutna otrovnost na vodene organizme: LC50 Ribe 460 mg/l 96h
	a) Akutna otrovnost na vodene organizme: EC50 Daphnia 230 mg/l 48h
	a) Akutna otrovnost na vodene organizme: EC50 Algae 770 mg/l 72h
	b) Hronična otrovnost na vodene organizme: NOEC Daphnia 51 mg/l 21d

1-metoksi-2-propanol

CAS: 107-98-2	a) Akutna otrovnost na vodene organizme: LC50 Ribe 6812 mg/l 96h
	a) Akutna otrovnost na vodene organizme: EC50 Daphnia 23300 mg/l 48h
	a) Akutna otrovnost na vodene organizme: EC50 Algae > 1000 mg/l 7d

2,2'-butiliminodietanol

CAS: 102-79-4 a) Akutna otrovnost na vodene organizme: LC50 Ribe > 316 mg/l 96h

a) Akutna otrovnost na vodene organizme: EC50 Daphnia > 100 mg/l 48h

a) Akutna otrovnost na vodene organizme: ErC50 Algae 100 mg/l 72h

b) Hronična otrovnost na vodene organizme: NOEC Daphnia 4.4 mg/l 21d

12.2. Postojanost i razgradivost

benzil-alkohol

CAS: 100-51-6 Brzo-biološki razgradiv

1-metoksi-2-propanol

CAS: 107-98-2 Brzo-biološki razgradiv

12.3. Bioakumulacijski potencijal

Ne primjenjuje se.

12.4. Pokretljivost u tlu

Ne primjenjuje se.

12.5. Rezultati procjene svojstava PBT i vPvB

Prema dostupnim podacima proizvod ne sadrži PBT/vPvB u postotku većem ≥ 0.1%.

12.6. Svojstva endokrine disrupcije

Bez drugih endokrinih disruptora prisutnih u koncentraciji > = 0,1 %

12.7. Ostali štetni učinci

Ne primjenjuje se.

ODJELJAK 13.: Zbrinjavanje

13.1. Metode obrade otpada

Regenerirati ako je moguće. Pri tome se pridržavati propisanih lokalnih i državnih propisa.

Ne dopustiti prodor u kanalizaciju ili vodene tokove.

Zbrinite kontejnera onečišćenih proizvoda u skladu s lokalnim ili nacionalnim zakonskim odredbama.

Proizvod se nakon isteka roka trajanja mora odložiti prema propisima na snazi.

ODJELJAK 14.: Informacije o prijevozu

Nije klasificirano kao opasno po propisima za transport.

14.1. UN broj ili identifikacijski broj

N/A

14.2. Ispravno otpremno ime prema UN-u

ADR-Naziv za otpremu: N/A

IATA-Naziv za otpremu: N/A

IMDG-Naziv za otpremu: N/A

14.3. Razred(i) opasnosti pri prijevozu

ADR-Razred: N/A

IATA-Razred: N/A

IMDG-Razred: N/A

14.4. Skupina pakiranja

ADR-Grupa pakiranja: N/A

IATA-Grupa pakiranja: N/A

IMDG-Grupa pakiranja: N/A

14.5. Opasnosti za okoliš

Morski polutant: Ne

Zagađivači okoliša: Ne

IMDG-EMS: N/A

14.6. Posebne mjere opreza za korisnika

Ceste i Željeznica (ADR-RID):

ADR oslobađa:

ADR-Označavanje: N/A

ADR - Identifikacijski broj opasnosti: N/A

ADR-Posebne odredbe: N/A

ADR ograničenja prijevoza u tunelu:

Zrak (IATA):

IATA-Putnički zrakoplov: N/A

IATA-Teretni zrakoplov: N/A
IATA-Označavanje: N/A
IATA-Sporedni opasnosti: N/A
IATA-Erg: N/A
IATA-Posebne odredbe: N/A

More (IMDG):

IMDG-Skladištenje i rukovanje: N/A
IMDG-Segregacija: N/A
IMDG-Sporedni opasnosti N/A
IMDG-Posebne odredbe: N/A

14.7. Prijevoz morem u razlivenom stanju u skladu s instrumentima IMO-a

Ne primjenjuje se.

ODJELJAK 15.: Informacije o propisima

15.1. Propisi u području sigurnosti, zdravlja i okoliša/posebno zakonodavstvo za tvar ili smjesu

Direktiva 98/24/EC (Rizici koji nastaju od kemijskih agenasa na radu)
Direktiva 2000/39/EC (Granična vrijednost profesionalne izloženosti)
Direktiva 2010/75/EU
Uredba (EC) br. 1907/2006 (REACH)
Uredba (EC) br. 1272/2008 (CLP)
Uredba (EC) br. 790/2009 (ATP 1 CLP) i (EZ) br. 758/2013
Uredba (EZ) br. 2020/878
Uredba (EZ) br. 286/2011 (ATP 2 CLP)
Uredba (EZ) br. 618/2012 (ATP 3 CLP)
Uredba (EZ) br. 487/2013 (ATP 4 CLP)
Uredba (EZ) br. 944/2013 (ATP 5 CLP)
Uredba (EZ) br. 605/2014 (ATP 6 CLP)
Uredba (EZ) br. 2015/1221 (ATP 7 CLP)
Uredba (EZ) br. 2016/918 (ATP 8 CLP)
Uredba (EZ) br. 2016/1179 (ATP 9 CLP)
Uredba (EZ) br. 2017/776 (ATP 10 CLP)
Uredba (EZ) br. 2018/669 (ATP 11 CLP)
Uredba (EZ) br. 2018/1480 (ATP 13 CLP)
Uredba (EZ) br. 2019/521 (ATP 12 CLP)
Uredba (EZ) br. 2020/217 (ATP 14 CLP)
Uredba (EZ) br. 2020/1182 (ATP 15 CLP)
Uredba (EZ) br. 2021/643 (ATP 16 CLP)
Uredba (EZ) br. 2021/849 (ATP 17 CLP)
Uredba (EZ) br. 2022/692 (ATP 18 CLP)
Uredba (EU) no. 2023/707
Uredba (EZ) br. 2023/1434 (ATP 19 CLP)
Uredba (EZ) br. 2023/1435 (ATP 20 CLP)
Uredba (EZ) br. 2024/197 (ATP 21 CLP)

Ograničenja u vezi s produktom ili sadržajnim tvarima u skladu s Prilogom XVII Uredbe (EZ-a) 1907/2006 (REACH) i naknadne izmjene:

Ograničenja koja se odnose na proizvod: 3
Ograničenja koja se odnose na sadržane tvari: 30 (CAS 1589-47-5), 40, 75

Odredbe prema direktivi 2012/18/EU (Seveso III)

Niti jedan

Uredba (EU) br. 649/2012 (Uredba PIC)

Nijedna tvar nije navedena

Njemačka klasifikacija opasnosti za vodu.

Klasa 1: malo zagađuje vodu.

SVHC tvari:

Prema dostupnim podacima proizvod ne sadrži SVHC u postotku većem ≥ 0.1%.

15.2. Procjena kemijske sigurnosti

Procjena kemijske sigurnosti nije provedena za smjesu.

ODJELJAK 16.: Ostale informacije

Šifra	Opis
H226	Zapaljiva tekućina i para.
H302	Štetno ako se proguta.
H317	Može izazvati alergijsku reakciju na koži.
H318	Uzrokuje teške ozljede oka.
H319	Uzrokuje jako nadraživanje oka.
H336	Može izazvati pospanost ili vrtoglavicu.

Šifra	Razred opasnosti i kategorija opasnosti	Opis
2.6/3	Flam. Liq. 3	Zapaljiva tekućina, kategorija 3
3.1/4/Oral	Acute Tox. 4	Akutna toksičnost (gutanje), kategorija 4
3.3/1	Eye Dam. 1	Teška ozljeda oka, kategorija 1
3.3/2	Eye Irrit. 2	Nadražujuće za oči, kategorija 2
3.4.2/1	Skin Sens. 1	Izazivanje preosjetljivosti kože, kategorija 1
3.4.2/1B	Skin Sens. 1B	Izazivanje preosjetljivosti kože, kategorija 1B
3.8/3	STOT SE 3	Specifična toksičnost za ciljane organe – jednokratno izlaganje, Kategorija 3

Razvrstavanje i postupak razvrstavanja za smjese sukladno Uredbi (EZ) br. 1272/2008 (CLP):

Razvrstavanje prema Uredbi (EZ) br. 1272/2008	Postupak razvrstavanja
Eye Irrit. 2, H319	Računska metoda
Skin Sens. 1, H317	Računska metoda

Ovaj dokument izradila je tehnički kompetentna osoba za SDS, te koja je prikladno za to osposobljena.

Glavni bibliografski izvori:

ECDIN – Informacijska mreža za ekološke podatke za kemikalije – Zajednički istraživački centar, Komisija Europskih zajednica

SAX's OPASNE OSOBINE INDUSTRIJSKIH TVARI- Osmo izdanje - Van Nostrand Reinold

Sigurnosno-tehnički listovi dobavljača sirovina.

Ovdje objavljne informacije se temelje na našem znanju u vrijeme gore navedenog datuma. Odnose se samo na navedene proizvode i ne predstavlja garanciju neke određene kvalitete.

Obaveza je korisnika da utvrdi da je ova informacija cjelovita i da odgovara specifičnoj upotrebi.

Ovaj MSDS poništava i zamjenjuje sva predhodna izdanja.

Legenda kratica i akronima upotrebljenih u sigurnosno-tehničkom listu:

ACGIH: Američka konferencija vladinih specijalista za industrijsku higijenu

ADR: Europski sporazum o međunarodnom cestovnom prijevozu opasnih tvari.

ATE: Procjena akutne toksičnosti

ATEmix: Procijenjena vrijednost akutne toksičnosti (Mješavine)

BEI: Indeks biološke izloženosti

CAS: CAS registarski broj (Američko kemijsko društvo)

CAV: Centar za otrove

CE: Europska zajednica

CLP: Razvrstavanje, označavanje, pakiranje.

CMR: Karcinogeno, Mutageno i Reprotoksično

COV: Hlapivi organski spoj

CSA: Procjena kemijske sigurnosti

CSR: Izvješće o kemijskoj sigurnosti

DNEL: Izvedena razina bez učinka.

EC50: Pulu maksimalna efektivna koncentracija

ECHA: Europska agencija za kemijske proizvode

EINECS: Europski propis postojećih trgovačkih kemijskih tvari.

ES: Scenario izloženosti

GefStoffVO: Propis o opasnim tvarima, Njemačka.

GHS: Globalno harmonizirani sustav razvrstavanja i označavanja kemikalija

IARC: Međunarodna agencija za istraživanja o karcinomu

IATA: Međunarodna udruga za zračni prijevoz.

IC50: Pulu maksimalna koncentracija inhibitora

IMDG: Međunarodni pomorski kodeks opasnog tereta.

LC50: Smrtna koncentracija u 50% slučajeva ispitivane populacije.

LD50: Smrtna doza u 50% slučajeva ispitivane populacije.

LDLo: Niska smrtonosna doza

N.A.: Nije primjenjivo

N/A: Nije primjenjivo
N/D: Nije definirano/Nije dostupno
N.D.: Nije dostupno
NIOSH: Državni institut za zaštitu na radu
NOAEL: Razina bez uočenih štetnih učinaka
OSHA: Upravljanje zaštitom na radu
PBT: Persistentno, bioakumulativno i toksično
PGK: Upute za pakiranje
PNEC: Predviđena koncentracija bez učinka.
PSG: Putnici
RID: Propis o međunarodnom prijevozu opasnih tvari željeznicom
STEL: Granica kratkotrajne izloženosti.
STOT: Toksičnost za ciljani organ.
TLV: Granična vrijednost praga.
TLV-TWA: Granična vrijednost praga za vremenski ponderirani prosjek. (ACGIH standard)
vPvB: Vrlo persistentno, vrlo bioakumulativno
WGK: Njemačka klasifikacija opasnosti za vodu.

Odlomci promijenjeni u odnosu na prethodnu reviziju:

- ODJELJAK 2.: Identifikacija opasnosti
- ODJELJAK 3.: Sastav/informacije o sastojcima
- ODJELJAK 8.: Nadzor nad izloženošću/osobna zaštita
- ODJELJAK 9.: Fizikalna i kemijska svojstva
- ODJELJAK 11.: Toksikološke informacije
- ODJELJAK 12.: Ekološke informacije
- ODJELJAK 16.: Ostale informacije

1-methoxy-2-propanol

Substance identification
Chemical Name: 1-methoxy-2-propanol
CAS number: 107-98-2
Date - Version: 08/10/2019- 17.0

USE IN COATINGS (USE IN INDUSTRIAL PLANTS).

TITLE SECTION

Short title of the exposure scenario: Use in coatings. (Use in industrial plants).
ERC4; PROC1, PROC7, PROC8a, PROC8b, PROC9

EXPOSURE SCENARIO CONSIDERED - ERC4

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

Operating conditions
Yearly amount used in EU: 63,050,000 kg
Daily amount per site: 105,087 kg
Minimum emission days per year: 300
Emission factor to air: 27 %
Emission factor in water: 2 %
Emission factor in soil: 0.1 %
Releases based on A&B tables from TGD 2003
Freshwater dilution factor: 10
Marine water dilution factor: 100

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

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

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0,1338
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.
Maximum safe use amount: 79,180 kg/day
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by water.

EXPOSURE SCENARIO CONSIDERED - PROC1

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days a week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 0.04 mg/m³
Risk Characterization Ratio (RCR): 0,0001
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Estimation of exposure 0.34 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.01

EXPOSURE SCENARIO CONSIDERED - PROC7

Covered use descriptors
PROC7: Industrial spray application Spraying (automatic/robotic)
Area of use: industrial

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days a week
It is assumed that the use does not exceed 20°C ambient temperature

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

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

EXPOSURE SCENARIO CONSIDERED - PROC7

Covered use descriptors
PROC7: Industrial spray application Spraying (manual)
Area of use: industrial

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week

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

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

EXPOSURE SCENARIO CONSIDERED - PROC8a

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC8b

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC9

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC7

Covered use descriptors
PROC7: Industrial spray application Spraying (automatic/robotic) Spraying (manual)
Area of use: industrial

Operating conditions
Substance concentration: ≥ 0% - ≤ 5% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

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

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

EXPOSURE SCENARIO CONSIDERED - PROC7

Covered use descriptors
PROC7: Industrial spray application Spraying (manual)
Area of use: industrial

Operating conditions
Substance concentration: ≥ 0% - ≤ 5% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Risk management measures
Wear suitable gloves compliant with EN 374.

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

EXPOSURE SCENARIO CONSIDERED - PROC8a

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

Operating conditions
Substance concentration: ≥ 0% - < 5% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 37.54 mg/m³
Risk Characterization Ratio (RCR): 0.1

USE IN COATINGS (USE IN INDUSTRIAL PLANTS).

TITLE SECTION

Short title of the exposure scenario: Use in coatings. (Use in industrial plants).
ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE SCENARIO CONSIDERED - ERC8a

Covered use descriptors

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

Operating conditions

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

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the waste water after risk management measures and treatment in the treatment plant: 87.3 %
Assumed sewage treatment plant flow: 2,000 m³/d

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0,029
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.
Maximum safe use amount: 15,141 kg/day
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.

EXPOSURE SCENARIO CONSIDERED - ERC8d

Covered use descriptors

ERC8d: Wide dispersive external use of processing aids in open systems.

Operating conditions

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

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the waste water after risk management measures and treatment in the treatment plant: 87.3 %
Assumed sewage treatment plant flow: 2,000 m³/d

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.
Maximum safe use amount: 15.141 kg/day
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.

EXPOSURE SCENARIO CONSIDERED - PROC1

Covered use descriptors

PROC1: Use in closed process, no likelihood of exposure.
Area of use: professional

Operating conditions

Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

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

EXPOSURE SCENARIO CONSIDERED - PROC2

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

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

EXPOSURE SCENARIO CONSIDERED - PROC2

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

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

EXPOSURE SCENARIO CONSIDERED - PROC3

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

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

EXPOSURE SCENARIO CONSIDERED - PROC4

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0,51
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

EXPOSURE SCENARIO CONSIDERED - PROC4

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
Indoor/Outdoor: Indoor use.
It is assumed that the use does not exceed 20°C ambient temperature

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

EXPOSURE SCENARIO CONSIDERED - PROC5

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

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

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

EXPOSURE SCENARIO CONSIDERED - PROC5

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Risk management measures
Ensure that operations are carried out externally.

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

EXPOSURE SCENARIO CONSIDERED - PROC8a

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0,27

EXPOSURE SCENARIO CONSIDERED - PROC8b

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC10

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

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

EXPOSURE SCENARIO CONSIDERED - PROC10

Covered use descriptors
PROC10: Application with rollers or brushes Roller, spatula, jet application
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Ensure that operations are carried out externally.
Wear suitable gloves compliant with EN 374.

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

EXPOSURE SCENARIO CONSIDERED - PROC11

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
Indoor/Outdoor: Indoor use.
It is assumed that the use does not exceed 20°C ambient temperature.

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

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

EXPOSURE SCENARIO CONSIDERED - PROC11

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

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

EXPOSURE SCENARIO CONSIDERED - PROC13

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

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

EXPOSURE SCENARIO CONSIDERED - PROC13

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Ensure that operations are carried out externally.

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

EXPOSURE SCENARIO CONSIDERED - PROC15

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC19

Covered use descriptors
PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 14.14 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.28

EXPOSURE SCENARIO CONSIDERED - PROC19

Covered use descriptors
PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100% 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

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

USE IN COATINGS (USE IN INDUSTRIAL PLANTS).

TITLE SECTION

Short title of the exposure scenario: Use in coatings. (Use in industrial plants).
ERC8a, ERC8b; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE SCENARIO CONSIDERED - ERC8a

Covered use descriptors

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

Operating conditions

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

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the waste water after risk management measures and treatment in the treatment plant: 87.3 %
Assumed sewage treatment plant flow: 2,000 m³/d

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.
Maximum safe use amount: 15.141 kg/day
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.

EXPOSURE SCENARIO CONSIDERED - ERC8d

Covered use descriptors

ERC8d: Wide dispersive external use of processing aids in open systems.

Operating conditions

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

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the waste water after risk management measures and treatment in the treatment plant: 87.3 %
Assumed sewage treatment plant flow: 2,000 m³/d

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.
Maximum safe use amount: 15.141 kg/day
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.

EXPOSURE SCENARIO CONSIDERED - PROC1

Covered use descriptors

PROC1: Use in closed process, no likelihood of exposure. General exposure (closed systems)
Area of use: professional

Operating conditions

Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source

PROC1
Evaluation method: ESIG GES tool, operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

EXPOSURE SCENARIO CONSIDERED - PROC2

Covered use descriptors

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

Operating conditions

Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source

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

EXPOSURE SCENARIO CONSIDERED - PROC2

Covered use descriptors

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

Operating conditions

Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 15.02 mg/m³
Risk Characterization Ratio (RCR): 0.04
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic.
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

EXPOSURE SCENARIO CONSIDERED - PROC3

Covered use descriptors

PROC3: Use in batch process (synthesis or formulation) Preparation of material for application
Area of use: professional

Operating conditions

Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source

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

EXPOSURE SCENARIO CONSIDERED - PROC4

Covered use descriptors

PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Film formation. Air drying.
Area of use: professional

Operating conditions

Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source

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

EXPOSURE SCENARIO CONSIDERED - PROC4

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
Indoor/Outdoor: Indoor use.
It is assumed that the use does not exceed 20°C ambient temperature

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

EXPOSURE SCENARIO CONSIDERED - PROC5

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic.
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

EXPOSURE SCENARIO CONSIDERED - PROC5

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Risk management measures
Ensure that operations are carried out externally.

Exposure estimation and reference to its source
PROC5
Evaluation method: ESIG GES tool, operator. Workers - all relevant routes of exposure.
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

EXPOSURE SCENARIO CONSIDERED - PROC8a

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 13,71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

EXPOSURE SCENARIO CONSIDERED - PROC8b

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC10

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

EXPOSURE SCENARIO CONSIDERED - PROC10

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
Indoor/Outdoor: Outdoor use
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source
PROC10
Evaluation method: ESIG GES tool, operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

EXPOSURE SCENARIO CONSIDERED - PROC11

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Effectiveness: 30%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%
If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 10.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.21

EXPOSURE SCENARIO CONSIDERED - PROC11

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Ensure that operations are carried out externally.
Wear chemically resistant gloves in combination with “basic” employee training.

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

EXPOSURE SCENARIO CONSIDERED - PROC13

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

EXPOSURE SCENARIO CONSIDERED - PROC13

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

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
Indoor/Outdoor: Internal use
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source
PROC13
Evaluation method: ESIG GES tool, operator. Workers - all relevant routes of exposure
If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

EXPOSURE SCENARIO CONSIDERED - PROC15

Covered use descriptors
PROC15: Use as a laboratory reagent Laboratory activities
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC19

Covered use descriptors
PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application, finger paints, crayons, stickers
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 28.29 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.56

EXPOSURE SCENARIO CONSIDERED - PROC19

Covered use descriptors
PROC19: Manual mixing with direct contact using only personal protective equipment. Hand application - fingerpaints, pastels, adhesives.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
Indoor/Outdoor Outdoor use
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Wear suitable gloves compliant with EN 374.

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

USE IN DETERGENTS (USE IN INDUSTRIAL PLANTS).

TITLE SECTION

Short title of the exposure scenario: Use in detergents. (Use in industrial plants).
ERC8a, ERC8d; PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13

EXPOSURE SCENARIO CONSIDERED - ERC8a

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

Operating conditions
Yearly amount used in EU: 5,200,000 kg
Daily amount per site: 0.71 kg
Minimum emission days per year: 365
Emission factor to air: 2 %
Emission factor in water: 0.001 %
Emission factor in soil: 0 %
Releases based on information from ESVOC/CEFIC
Freshwater dilution factor: 10
Marine water dilution factor: 100

Risk management measures
Treat air emissions to provide a typical removal efficiency of (%) 70 %
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the waste water after risk management measures and treatment in the treatment plant: 87.3 %
Assumed sewage treatment plant flow: 2,000 m³/d

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

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.00138
Risk from environmental exposure is driven by marine water.
Maximum safe use amount: 550 kg/day
Risk from environmental exposure is driven by fresh water. Risk from environmental exposure is driven by marine water.

EXPOSURE SCENARIO CONSIDERED - ERC8d

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

Operating conditions
Yearly amount used in EU: 5,200,000 kg
Daily amount per site: 0.71 kg
Minimum emission days per year: 365
Emission factor to air: 2 %
Emission factor in water: 0.001 %
Emission factor in soil: 0 %
Releases based on information from ESVOC/CEFIC
Freshwater dilution factor: 10
Marine water dilution factor: 100
Other factors: Outdoor use.

Risk management measures
Treat air emissions to provide a typical removal efficiency of (%) 70 %
Type of treatment plant: Municipal sewage treatment plant.
Total removal efficiency of the substance from the waste water after risk management measures and treatment in the treatment plant: 87.3 %
Assumed sewage treatment plant flow: 2,000 m³/d

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

Exposure estimation and reference to its source
Risk Characterization Ratio (RCR): 0.00138
Risk from environmental exposure is driven by marine water.
Maximum safe use amount: 550 kg/day
Risk from environmental exposure is driven by marine water.

EXPOSURE SCENARIO CONSIDERED - PROC2

Covered use descriptors
PROC2: Use in closed, continuous process with occasional controlled exposure. Automated process with (semi) closed systems. Use in contained systems.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0,2
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 1.37 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.03

EXPOSURE SCENARIO CONSIDERED - PROC3

Covered use descriptors
PROC3: Use in batch process (synthesis or formulation). Use in contained systems. Drum/batch transfers. Automated process with (semi) closed systems.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature

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

EXPOSURE SCENARIO CONSIDERED - PROC4

Covered use descriptors
PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Semi-automatic process. Application of cleaning products in closed systems. Cleaning of medical devices.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 187.71 mg/m³
Risk Characterization Ratio (RCR): 0,51
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 6.86 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.14

EXPOSURE SCENARIO CONSIDERED - PROC4

Covered use descriptors
PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Application of cleaning products in closed systems.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC4

Covered use descriptors
PROC4: Use in batch and other processes (synthesis) where opportunity for exposure arises. Cleaning of medical devices.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility.
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Exposure estimation and reference to its source
PROC4
Evaluation method: ESIG GES tool, operator. Workers - all relevant routes of exposure.
The use has been assessed as safe.

EXPOSURE SCENARIO CONSIDERED - PROC8a

Covered use descriptors
PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities. Filling/Preparation of equipment required for drums and containers. Non-dedicated system.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 240 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Ensure that operations are carried out externally. Effectiveness: 30%

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 157.68 mg/m³
Risk Characterization Ratio (RCR): 0.43
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

EXPOSURE SCENARIO CONSIDERED - PROC8b

Covered use descriptors
PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities. Filling/Preparation of equipment required for drums and containers. Dedicated plant.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

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

EXPOSURE SCENARIO CONSIDERED - PROC10

Covered use descriptors
PROC10: Application with rollers or brushes. Low pressure cleaning with detergents.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Effectiveness: 70%

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 112.63 mg/m³
Risk Characterization Ratio (RCR): 0.31
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

EXPOSURE SCENARIO CONSIDERED - PROC10

Covered use descriptors
PROC10: Application with rollers or brushes. Surface cleaning (manual) by fogging.
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Effectiveness: 30%
Wear suitable gloves compliant with EN 374. Effectiveness: 80%

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

EXPOSURE SCENARIO CONSIDERED - PROC10

Covered use descriptors
PROC10: Application with rollers or brushes. Manual application by fogging, dipping etc. Rolling/brushing
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Provide extract ventilation in points where emissions occur (LEV). Effectiveness: 80%

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 75.08 mg/m³
Risk Characterization Ratio (RCR): 0.2
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 27.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.54

EXPOSURE SCENARIO CONSIDERED - PROC11

Covered use descriptors
PROC11: Non-industrial spray application. Cleaning with high pressure washers
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
Indoor/Outdoor Internal use
It is assumed that the use does not exceed 20°C ambient temperature.

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

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 112.63 mg/m³
Risk Characterization Ratio (RCR): 0.31
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 21.43 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.42

EXPOSURE SCENARIO CONSIDERED - PROC11

Covered use descriptors
PROC11: Non-industrial spray application. Cleaning with high pressure washers
Area of use: professional

Operating conditions
Substance concentration: ≥ 0% - ≤ 5 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures
Ensure that operations are carried out externally. Effectiveness: 30%
Wear chemically resistant gloves in combination with “basic” employee training. Effectiveness: 90%

Exposure estimation and reference to its source
Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 262.79 mg/m³
Risk Characterization Ratio (RCR): 0.71
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 10.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.21

EXPOSURE SCENARIO CONSIDERED - PROC13

Covered use descriptors

PROC13: Treatment of articles by dipping and pouring. Surface cleaning (manual). Enamelling, dipping and pouring.
Area of use: professional

Operating conditions

Substance concentration: ≥ 0% - ≤ 100 % 1-methoxy-2-propanol
Physical state: liquid, medium volatility
Duration and frequency of application: 480 mins. 5 days/week
It is assumed that the use does not exceed 20°C ambient temperature.

Risk management measures

Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Effectiveness: 70%

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, operator. Worker - inhalation, long-term - systemic
Exposure estimation: 112.63 mg/m³
Risk Characterization Ratio (RCR): 0.31
Evaluation method: ESIG GES tool, operator. Worker - dermal, long term - systemic
Exposure estimation: 13.71 mg/kg/day (body weight)
Risk Characterization Ratio (RCR): 0.27

2,2'-butyliminodiethanol

Substance identification
Chemical Name: 2,2'-butyliminodiethanol
CAS number: 102-79-4
Date - Version: 17/06/2025

INDUSTRIAL USE

Use in paints/coatings
Environment: ERC4
Worker : PROC1, PROC2, PROC3, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC15

CONDITIONS AFFECTING EXPOSURE

Environmental exposure control: Industrial use of processing aids not becoming part of articles. ERC4

Product features (article)
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Annual amount per site: <125 tonnes/year

Conditions and measures related to external recovery of waste
STP Type: Municipal wastewater treatment plant

Conditions and measures for waste treatment (including the article of waste)
Waste treatment: Dispose of waste product or used containers according to local regulations.

Other conditions concerning environmental exposure
Internal use

Worker Exposure Control: Use in closed process, exposure unlikely PROC1

Product features (article)
Covers the percentage of substance in the product up to 100%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Annual amount per site: <400 tonnes/year
Duration: <8 h

Organizational and technical measures and conditions
Closed systems
Provide a good standard of general ventilation (1 to 3 air changes per hour).

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear suitable gloves tested to EN374.
Dermal: Minimum efficiency of 80%.

Other conditions concerning worker exposure
Body parts exposed: The palm of a hand (240 cm²).
Internal use
Temperature: < 40°C

Worker Exposure Control: Use in a closed, continuous process with occasional controlled exposure PROC2

Product features (article)
Covers the percentage of substance in the product up to 100%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Annual amount per site: <400 tonnes/year
Duration: <8 h

Organizational and technical measures and conditions
Closed systems
Provide a good standard of general ventilation (1 to 3 air changes per hour).
Local exhaust ventilation
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear suitable gloves tested to EN374.
Dermal: Minimum efficiency of 80%.

Other conditions concerning worker exposure
Body parts exposed: The palm of both hands (480 cm²).
Internal use
Temperature: < 40°C

Worker Exposure Control: Use in a closed batch process (synthesis or formulation) PROC3

Product features (article)
Covers the percentage of substance in the product up to 100%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Organizational and technical measures and conditions
Closed systems
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.
Local exhaust ventilation
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear suitable gloves tested to EN374.
Dermal: Minimum efficiency of 80%.

Other conditions concerning worker exposure
Body parts exposed: The palm of a hand (240 cm²).
Internal use
Temperature: < 40°C

Worker Exposure Control: Mixing or blending in batch processes for formulation of preparations and articles (contact at different stages and/or important contact) PROC5

Product features (article)
Covers the percentage of substance in the product up to 100%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: minimum efficiency of 95%

Organizational and technical measures and conditions
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.
Local exhaust ventilation
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: The palm of both hands (480 cm²).
Internal use
Temperature: < 40°C

Worker Exposure Control: Industrial spray application PROC7

Product features (article)
Covers a percentage of substance in the product up to 1%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: minimum efficiency of 95%

Organizational and technical measures and conditions
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.
Local exhaust ventilation
Inhalation: minimum yield 95%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: Both hands and main arm parts
Internal use
Temperature: < 40°C

Worker Exposure Control: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. PROC8a/PROC8b

Product features (article)
Covers the percentage of substance in the product up to 100%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation: minimum efficiency of 80%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: Both hands (960 cm²).
Internal use
Temperature: < 40°C
Room size: > 30m³
Ventilation rate per hour: 1

Worker Exposure Control: Transfer of chemicals into small containers (dedicated filling line) PROC9

Product features (article)
Covers the percentage of substance in the product up to 100%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation: minimum efficiency of 80%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: The palm of both hands (480 cm²).
Internal use
Temperature: < 40°C
Room size: > 30m³
Ventilation rate per hour: 1

Worker Exposure Control: Application with rollers or brushes PROC10

Product features (article)
Covers up to 5% of the substance in the product
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Organizational and technical measures and conditions
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.
Local exhaust ventilation
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: Both hands (960 cm²).
Internal use
Temperature: < 40°C

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

Product features (article)
Covers up to 5% of the substance in the product
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Organizational and technical measures and conditions
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.
Local exhaust ventilation
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: The palm of both hands (480 cm²).
Internal use
Temperature: < 40°C

Worker Exposure Control: Use as laboratory reagent PROC15

Product features (article)
Covers the percentage of substance in the product up to 100%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: minimum efficiency of 95%

Organizational and technical measures and conditions
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.
Local exhaust ventilation
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8.

Other conditions concerning worker exposure
Body parts exposed: The palm of a hand (240 cm²).
Internal use
Temperature: < 40°C

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Release estimation method:

Worker exposure: Use in closed process, exposure unlikely PROC1

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.067 mg/m³	0.03
inhalation	local	Long-term	0.067 mg/m³	0.059
dermal	systemic	Long-term	0.007 mg/kg day	<0.01
combined routes	systemic	Long-term		0.035

Worker exposure: Use in a closed, continuous process with occasional controlled exposure PROC2

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.672 mg/m³	0.303
inhalation	local	Long-term	0.672 mg/m³	0.589
dermal	systemic	Long-term	0.138 mg/kg day	0.175
combined routes	systemic	Long-term		0.477

Worker exposure: Use in a closed batch process (synthesis or formulation) PROC3

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.605 mg/m³	0.272
inhalation	local	Long-term	0.605 mg/m³	0.53
dermal	systemic	Long-term	0.138 mg/kg day	0.088
combined routes	systemic	Long-term		0.36

Worker exposure: Mixing or blending in batch processes for formulation of preparations and articles (contact at different stages and/or important contact) PROC5

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.605 mg/m³	0.272
inhalation	local	Long-term	0.605 mg/m³	0.53
dermal	systemic	Long-term	0.343 mg/kg day	0.218
combined routes	systemic	Long-term		0.491

Worker exposure: Industrial spray application PROC7

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.605 mg/m³	0.272
inhalation	local	Long-term	0.605 mg/m³	0.53
dermal	systemic	Long-term	0.685 mg/kg day	0.137
combined routes	systemic	Long-term		0.409

Worker exposure: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. PROC8a/PROC8b

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.57 mg/m³	0.257
inhalation	local	Long-term	0.57 mg/m³	0.5
dermal	systemic	Long-term	0.685 mg/kg day	0.437
combined routes	systemic	Long-term		0.693

Worker exposure: Transfer of chemicals into small containers (dedicated filling line) PROC9

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.19 mg/m³	0.086
inhalation	local	Long-term	0.19 mg/m³	0.167
dermal	systemic	Long-term	0.343 mg/kg day	0.218
combined routes	systemic	Long-term		0.304

Worker exposure: Application with rollers or brushes PROC10

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.403 mg/m³	0.182
inhalation	local	Long-term	0.403 mg/m³	0.354
dermal	systemic	Long-term	0.274 mg/kg day	0.175
combined routes	systemic	Long-term		0.356

Worker exposure: Treatment of articles by dipping and pouring PROC13

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.403 mg/m³	0.182
inhalation	local	Long-term	0.403 mg/m³	0.354
dermal	systemic	Long-term	0.137 mg/kg day	0.087
combined routes	systemic	Long-term		0.269

Worker exposure: Use as laboratory reagent PROC15

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.605 mg/m³	0.272
inhalation	local	Long-term	0.605 mg/m³	0.53
dermal	systemic	Long-term	0.34 mg/kg day	0.217
combined routes	systemic	Long-term		0.489

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

PROFESSIONAL USE

Use in paints/coatings
Environment: ERC8a/ERC8d
Worker : PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13

CONDITIONS AFFECTING EXPOSURE

Environmental exposure control: Wide dispersive indoor and outdoor use of reactive substances or processing aids in open systems ERC8a/ERC8d

Product features (article)
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Daily amount for wide dispersive uses: <0.07 mg/kg day

Conditions and measures related to external recovery of waste
STP Type: Municipal wastewater treatment plant

Conditions and measures for waste treatment (including the article of waste)
Waste treatment: Dispose of waste product or used containers according to local regulations.

Other conditions concerning environmental exposure
Indoor and outdoor use

Worker Exposure Control: Use in a closed batch process (synthesis or formulation) PROC3

Product features (article)
Covers a percentage of substance in the product up to 1%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Organizational and technical measures and conditions
Closed systems
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear suitable gloves tested to EN374.
Dermal: Minimum efficiency of 80%.

Other conditions concerning worker exposure
Body parts exposed: The palm of a hand (240 cm²).
Internal use
Temperature: < 40°C

Worker Exposure Control: Mixing or blending in batch processes for formulation of preparations and articles (contact at different stages and/or important contact) PROC5

Product features (article)
Covers up to 5% of the substance in the product
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <1 h

Organizational and technical measures and conditions
Provide a good standard of general ventilation (5 to 10 air changes per hour).
Inhalation: minimum efficiency of 70%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: 90% minimum efficiency

Other conditions concerning worker exposure
Body parts exposed: The palm of both hands (480 cm²).
Internal use
Temperature: < 40°C

Worker Exposure Control: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. PROC8a/PROC8b

Product features (article)
Covers a percentage of substance in the product up to 1%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Organizational and technical measures and conditions
Local exhaust ventilation
Inhalation: minimum yield of 90%.

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: Both hands (960 cm²).
Internal use
Temperature: < 40°C
Room size: > 30m³
Ventilation rate per hour: 3

Worker Exposure Control: Transfer of chemicals into small containers (dedicated filling line) PROC9

Product features (article)
Covers a percentage of substance in the product up to 1%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Dermal: 90% minimum efficiency

Other conditions concerning worker exposure
Body parts exposed: The palm of both hands (480 cm²).
Internal use
Temperature: < 40°C
Room size: > 30m³
Ventilation rate per hour: 1

Worker Exposure Control: Application with rollers or brushes PROC10

Product features (article)
Covers a percentage of substance in the product up to 1%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: minimum efficiency of 95%

Other conditions concerning worker exposure
Body parts exposed: Both hands (960 cm²).
Internal use
Room size: > 30m³
Temperature: < 40°C

Worker Exposure Control: Non-industrial spray application PROC11

Product features (article)
Covers a percentage of substance in the product up to 1%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: minimum efficiency of 95%

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Dermal: 90% minimum efficiency

Other conditions concerning worker exposure
Body parts exposed: Hands and forearms
Internal use
Room size: > 30m³
Temperature: < 40°C

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

Product features (article)
Covers a percentage of substance in the product up to 1%
Physical form of the product: liquid substance

Amounts used, frequency and duration of use (or useful life)
Duration: <8 h

Conditions and measures for personal protection, hygiene and health assessment
Wear safety goggles as described in section 8. Wear chemical resistant gloves (tested to EN374) and provide employees with basic training.
Dermal: 90% minimum efficiency

Other conditions concerning worker exposure
Body parts exposed: The palm of both hands (480 cm^2).
Internal use
Room size: > 30m^3
Temperature: < 40°C

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Release estimation method:

Worker exposure: Use in a closed batch process (synthesis or formulation) PROC3

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.605 mg/m^3	0.272
inhalation	local	Long-term	0.605 mg/m^3	0.53
dermal	systemic	Long-term	0.014 mg/kg day	<0.01
combined routes	systemic	Long-term		0.281

Worker exposure: Mixing or blending in batch processes for formulation of preparations and articles (contact at different stages and/or important contact) PROC5

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.806 mg/m^3	0.363
inhalation	local	Long-term	0.806 mg/m^3	0.707
dermal	systemic	Long-term	0.274 mg/kg day	0.175
combined routes	systemic	Long-term		0.538

Worker exposure: Transfer of substance or mixture (charging/discharging) from/to vessels/large containers at dedicated facilities. PROC8a/PROC8b

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.023 mg/m^3	0.01
inhalation	local	Long-term	0.023 mg/m^3	0.02
dermal	systemic	Long-term	0.137 mg/kg day	0.087
combined routes	systemic	Long-term		0.098

Worker exposure: Transfer of chemicals into small containers (dedicated filling line) PROC9

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.004 mg/m^3	< 0.01
inhalation	local	Long-term	0.004 mg/m^3	< 0.01
dermal	systemic	Long-term	0.137 mg/kg day	0.437
combined routes	systemic	Long-term		0.439

Worker exposure: Application with rollers or brushes PROC10

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.12 mg/m^3	0.054
inhalation	local	Long-term	0.12 mg/m^3	0.105
dermal	systemic	Long-term	0.274 mg/kg day	0.175
combined routes	systemic	Long-term		0.229

Worker exposure: Non-industrial spray application PROC11

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.23mg/m³	0.104
inhalation	local	Long-term	0.23mg/m³	0.202
dermal	systemic	Long-term	1.071 mg/kg day	0.682
combined routes	systemic	Long-term		0.786

Worker exposure: Treatment of articles by dipping and pouring PROC13

Route of exposure	Health effect	Exposure indicator	Estimated exposure	RCR
inhalation	systemic	Long-term	0.14mg/m³	0.063
inhalation	local	Long-term	0.14mg/m³	0.123
dermal	systemic	Long-term	0.137 mg/kg day	0.087
combined routes	systemic	Long-term		0.15

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