

AQUAZIP BARRIER PRIMER

Sigurnosno-tehničkog lista, datum: 30/07/2025 Opis version 3

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

1.1. Identifikacijska oznaka proizvoda

Identifikacija preparata:

Trgovačko ime: AQUAZIP BARRIER PRIMER

Trgovački kod: 1322

UFI: 52VF-R5JX-S0EX-XN0K

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

Preporučana upotreba: Temeljni premaz na bazi sintetskih smola; Samo za stručno upotrebljavanje

Nepreporučljiva upotreba: Nije namijenjeno potrošačima

1.3. Podaci o dobavljaču koji isporučuje sigurnosno-tehnički list

Tvrtka: FASSA Srl

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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)

Flam. Liq. 3 Zapaljiva tekućina i para.

STOT SE 3 Može nadražiti dišni sustav.

STOT SE 3 Može izazvati pospanost ili vrtoglavicu.

Aquatic Chronic 2 Otrovno za vodeni okoliš s dugotrajnim učincima.

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

H226 Zapaljiva tekućina i para.

H335 Može nadražiti dišni sustav.

H336 Može izazvati pospanost ili vrtoglavicu.

H411 Otrovno za vodeni okoliš s dugotrajnim učincima.

Oznake obavijesti

P210 Čuvati odvojeno od topline, vrućih površina, iskri, otvorenih plamena i ostalih izvora paljenja. Ne pušiti.

P261 Izbjegavati udisanje dima/plina/magle/pare/aerosola.

P273 Izbjegavati ispuštanje u okoliš.

P280 Nositi zaštitne rukavice/zaštitno odijelo.

P312 U slučaju zdravstvenih tegoba nazvati CENTAR ZA KONTROLU OTROVANJA/liječnika.

P391 Sakupiti proliveno/rasuto.

Posebna osiguranja:

Sadrži:

Ugljikovodici, C9, aromatski
2-metoksi-1-metiletil-acetat

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

Niti jedan

2.3. Ostale opasnosti

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: AQUAZIP BARRIER PRIMER

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

Količina	Naziv	Ident. Broj.	Klasifikacija	Broj registriranih slučajeva:
≥40 - <50 %	Ugljikovodici, C9, aromatski	EC:918-668-5	Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H335; STOT SE 3, H336; Aquatic Chronic 2, H411, EUH066	01-2119455851-35-xxxx
≥20 - <25 %	2-metoksi-1-metiletil-acetat	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29-xxxx
≥0.05 - <0.1 %	ksilen	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412	01-2119488216-32-xxxx
Procjena akutne toksičnosti: ATE - Dermalno: 1100mg/kg t.m. ATE - Udisanje (Pare): 11mg/l				

Napomena: bilo koji podatak u stupcu EC # koji počinje brojem „9” jest EC # Provisional List Number (privremeni broj popisa) koji dostavlja agencija ECHA do objave službenog Europskog popisa tvari. Sljedeća tvar identificira se brojem CAS u zemljama koje ne podliježu odredbama Uredbe REACH ili pravilnicima koji se još nisu ažurirali novim nomenklaturama ugljikovodičnih otapala. Ugljikovodici, C9, aromatski: CAS 64742-95-6.

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 s očima, isprati odmah s puno vode i potražiti liječničku pomoć.

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.
Ukoliko se proguta, hitno zatražiti savjet liječnika i pokazati posudu ili naljepnicu.

4.2. Najvažniji simptomi i učinci, akutni i odgođeni

Simptomi i učinci su u skladu s očekivanjima 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:

CO₂, aparati za gašenje požara prahom, pjena, raspršivanje vode.

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

Voda u mlazovima.

5.2. Posebne opasnosti koje proizlaze iz tvari ili smjese

Sagorijevanjem se oslobađaju teški dimovi.

Ne udisati plinove nastale eksplozijom i/ili izgaranjem (ugljikov monoksid i ugljikov dioksid, dušikove okside).

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 svaki izvor plamena.

Ukoliko ste izloženi pari/prašini/aerosoli nosite dišne aparate.

Obezbjediti prikladno prozračivanje.

Koristiti prikladnu zaštitu dišnih organa.

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.

Koristiti lokaliziranu ventilaciju.

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 preporučenim 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 izvora topline.

Čuvati dalje od nezaštićenog plamena, iskrenja i izvora topline. Izbjegavati izravno izlaganje sunčevoj svjetlosti.

Držati podalje od hrane, pića i krmiva.

Inkompatibilne tvari:

Vidi točku 10.5

Upute za prostorije za skladištenje:

Hladno i adekvatno prozračeno.

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

Ugljikovodici, C9, aromatski

OEL Tip ACGIH Dugoročno 100 mg/m³ - 19 ppm

2-metoksi-1-metiletil-acetat

CAS: 108-65-6	OEL Tip	UE		Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	MAK	Austrija	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	MAK	Njemačka	Dugoročno 270 mg/m ³ - 50 ppm; Kratkoročno 270 mg/m ³ - 50 ppm
	OEL Tip	VLEP	Belgija	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 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 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	VLEP	Italija	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	VLEP	Rumunjska	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm
	OEL Tip	TLV	Bugarska	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	TLV	Češka	Dugoročno 270 mg/m ³ - 49.14 ppm; Kratkoročno 550 mg/m ³ - 10.01 ppm Napomene: Skin
	OEL Tip	VLA	Španjolska	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	ÁK	Mađarska	Dugoročno 275 mg/m ³ ; Kratkoročno 550 mg/m ³
	OEL Tip	MAC	Nizozemska	Dugoročno 550 mg/m ³ - 100 ppm
	OEL Tip	VLE	Portugal	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	SUVA	Švicarska	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 275 mg/m ³ - 50 ppm
	OEL Tip	WEL	U.K.	Dugoročno 274 mg/m ³ - 50 ppm; Kratkoročno 548 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	GVI	Hrvatska	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	AGW	Njemačka	Dugoročno 270 mg/m ³ - 50 ppm; Kratkoročno 270 mg/m ³ - 50 ppm
	OEL Tip	NDS	Poljska	Dugoročno 260 mg/m ³ ; Kratkoročno 520 mg/m ³ Napomene: Skin
	OEL Tip	MV	Slovenija	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	IPRV	Litva	Dugoročno 250 mg/m ³ - 50 ppm; Kratkoročno 400 mg/m ³ - 75 ppm Napomene: Skin
	OEL Tip	RV	Latvija	Dugoročno 275 mg/m ³ - 50 ppm; Kratkoročno 550 mg/m ³ - 100 ppm Napomene: Skin

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CAS: 1330-20-7	OEL Tip	ACGIH		Dugoročno 20 ppm Napomene: A4, BEI - URT and eye irr, CNS impair
	OEL Tip	UE		Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	MAK	Austrija	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm
	OEL Tip	MAK	Njemačka	Dugoročno 220 mg/m ³ - 50 ppm; Kratkoročno 440 mg/m ³ - 100 ppm Napomene: Skin
	OEL Tip	VLEP	Belgija	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 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 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	VLEP	Italija	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	VLEP	Rumunjska	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm
OEL Tip	TLV	Bugarska	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	TLV	Češka	Dugoročno 200 mg/m ³ - 45.4 ppm; Kratkoročno 400 mg/m ³ - 90.8 ppm Napomene: Skin
OEL Tip	VLA	Španjolska	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm
OEL Tip	ÁK	Mađarska	Dugoročno 221 mg/m ³ ; Kratkoročno 442 mg/m ³ Napomene: Skin
OEL Tip	MAC	Nizozemska	Dugoročno 210 mg/m ³ - 47.5 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	VLE	Portugal	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	SUVA	Švicarska	Dugoročno 220 mg/m ³ - 50 ppm; Kratkoročno 440 mg/m ³ - 100 ppm
OEL Tip	WEL	U.K.	Dugoročno 220 mg/m ³ - 50 ppm; Kratkoročno 441 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	GVI	Hrvatska	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	AGW	Njemačka	Dugoročno 220 mg/m ³ - 50 ppm; Kratkoročno 440 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	NDS	Poljska	Dugoročno 100 mg/m ³ ; Kratkoročno 200 mg/m ³ Napomene: Skin
OEL Tip	MV	Slovenija	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	IPRV	Litva	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin
OEL Tip	RV	Latvija	Dugoročno 221 mg/m ³ - 50 ppm; Kratkoročno 442 mg/m ³ - 100 ppm Napomene: Skin

Granične vrijednosti izloženosti PNEC

2-metoksi-1-metiletil-acetat

CAS: 108-65-6 Putevi izloženosti: Svježa voda; PNEC Ograničiti: 0.635 mg/l
Putevi izloženosti: Morska voda; PNEC Ograničiti: 0.064 mg/l
Putevi izloženosti: Mikroorganizmi u postrojenjima za obradu otpadnih voda (STP); PNEC Ograničiti: 100 mg/l
Putevi izloženosti: Sedimenti svježe vode; PNEC Ograničiti: 3.29 mg/kg
Putevi izloženosti: Sedimenti morske vode; PNEC Ograničiti: 0.329 mg/kg
Putevi izloženosti: Tlo (poljoprivredno); PNEC Ograničiti: 0.29 mg/kg

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CAS: 1330-20-7 Putevi izloženosti: Morska voda; PNEC Ograničiti: 0.327 mg/l
Putevi izloženosti: Svježa voda; PNEC Ograničiti: 0.327 mg/l
Putevi izloženosti: Mikroorganizmi u postrojenjima za obradu otpadnih voda (STP); PNEC Ograničiti: 6.58 mg/l
Putevi izloženosti: Sedimenti morske vode; PNEC Ograničiti: 12.46 mg/kg
Putevi izloženosti: Sedimenti svježe vode; PNEC Ograničiti: 12.46 mg/kg
Putevi izloženosti: Tlo (poljoprivredno); PNEC Ograničiti: 2.31 mg/kg

Izvedena razina bez učinka. (DNEL)

Ugljikovodici, C9, aromatski

Putevi izloženosti: Ljudi dermalno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 25 mg/kg; Potrošač: 11 mg/kg
Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, sistemski učinci

Profesionalni djelatnik: 150 mg/m³; Potrošač: 32 mg/m³

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Potrošač: 11 mg/kg

2-metoksi-1-metiletil-acetat

CAS: 108-65-6 Putevi izloženosti: Ljudi dermalno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 796 mg/kg; Potrošač: 320 mg/kg

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Potrošač: 36 mg/kg

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Kratkotrajni, sistemski učinci
Potrošač: 500 mg/kg

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 275 mg/m³; Potrošač: 33 mg/m³

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Kratkotrajni, lokalni učinci
Profesionalni djelatnik: 550 mg/m³

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, lokalni učinci
Potrošač: 33 mg/m³

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CAS: 1330-20-7 Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 221 mg/m³; Potrošač: 65.3 mg/m³

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Kratkotrajni, sistemski učinci
Profesionalni djelatnik: 442 mg/m³; Potrošač: 260 mg/m³

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Kratkotrajni, lokalni učinci
Profesionalni djelatnik: 442 mg/m³; Potrošač: 260 mg/m³

Putevi izloženosti: Ljudi inhalacijski; Učestalost izloženosti: Dugotrajni, lokalni učinci
Profesionalni djelatnik: 221 mg/m³; Potrošač: 65.3 mg/m³

Putevi izloženosti: Ljudi dermalno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Profesionalni djelatnik: 212 mg/kg; Potrošač: 125 mg/kg

Putevi izloženosti: Ljudi oralno; Učestalost izloženosti: Dugotrajni, sistemski učinci
Potrošač: 12.5 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:

Osoblje treba nositi antistatičku odjeću od prirodnih vlakana ili sintetičkih vlakana otpornih na visoke temperature.

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); FKM (fluorirana 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).

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: bjelkasto

Miris: na bazi otapala

Prag mirisa: N.D.
Talište/ledište: N.D.
Vrelište ili početno vrelište i raspon temperatura vrenja: N.D.
Zapaljivost: Proizvod je razvrstan kao Flam. Liq. 3 H226
Donja i gornja granica eksplozivnosti: N.D.
Plamište: 52.5 °C (126.5 °F) (EN ISO 3679)
Temperatura samozapaljenja: N.D.
Temperatura raspadanja: N.D.
pH: Ne primjenjuje se. (Ne odnosi se zbog prirode proizvoda)
Kinematička viskoznost: > 20.5 mm²/s (40 °C)
Gustoća i/ili relativna gustoća: 0.92 ± 0.02 kg/l (Interna metoda)
Relativna gustoća pare: N.D.
Tlak pare: N.D.
Topljivost u vodi: Netopivo
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.

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

Zbog djelovanja topline ili u slučaju požara može doći do oslobađanja ugljikovih oksida i para koji mogu biti štetni za zdravlje.
Držati podalje od oksidansa, vrlo lužnatih i vrlo kiselih materijala radi sprečavanja egzotermnih reakcija.

10.4. Uvjeti koje treba izbjegavati

Čuvati odvojeno od izvora topline.

10.5. Inkompatibilni materijali

Izbjegavati dodir s oksidirajućim materijalima. Proizvod se može zapaliti.
Vidi točku 10.3

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	Nije kategorizirano Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
d) izazivanje kožne ili dišne preosjetljivosti	Nije kategorizirano Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.
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	Proizvod je razvrstan kao: STOT SE 3(H335), STOT SE 3(H336)
i) Specifična toksičnost za ciljne organe (STOT) opetovano izlaganje	Nije kategorizirano
j) opasnost u slučaju udisanja	Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni. Nije kategorizirano Na temelju dostupnih podataka kriteriji za razvrstavanje nisu ispunjeni.

Podaci o toksičnosti glavnih sastojaka u proizvodu:

Ugljikovodici, C9, aromatski

a) akutna toksičnost	LD50 Oralno Štakor 3492 mg/kg LD50 Koža Kunić > 3160 mg/kg LC50 Udisanje pare Štakor > 6193 mg/m3 4h
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2-metoksi-1-metiletil-acetat

CAS: 108-65-6 a) akutna toksičnost	LD50 Oralno Štakor > 5000 mg/kg LD50 Koža Kunić > 5000 mg/kg LC0 Udisanje pare Štakor > 4345 ppm 6h
------------------------------------	---

ksilen

CAS: 1330-20-7 a) akutna toksičnost	ATE - Dermalno: 1100 mg/kg t.m. ATE - Udisanje (Pare): 11 mg/l LD50 Oralno Štakor 3523 mg/kg
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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:

Otrovno za vodeni okoliš s dugotrajnim učincima.

Popis eko-toksikoloških svojstava proizvoda

Proizvod je razvrstan kao: Aquatic Chronic 2(H411)

Popis sastojaka sa eko-toksikološkim svojstvima

Ugljikovodici, C9, aromatski

a) Akutna otrovnost na vodene organizme:	EL50 Daphnia 3.2 mg/l 48h
a) Akutna otrovnost na vodene organizme:	ErL50 Algae 2.9 mg/l 72h
a) Akutna otrovnost na vodene organizme:	LC50 Ribe 9.2 mg/l 96h

2-metoksi-1-metiletil-acetat

CAS: 108-65-6 a) Akutna otrovnost na vodene organizme:	LC50 Ribe 134 mg/l 96h
a) Akutna otrovnost na vodene organizme:	EC50 Daphnia 408 mg/l 48h
a) Akutna otrovnost na vodene organizme:	EC50 Algae > 1000 mg/l 96h
b) Hronična otrovnost na vodene organizme:	NOEC Ribe 47.5 mg/l - 14 d

12.2. Postojanost i razgradivost

Ugljikovodici, C9, aromatski

Brzo-biološki razgradiv

2-metoksi-1-metiletil-acetat

CAS: 108-65-6 Brzo-biološki razgradiv

ksilen

CAS: 1330-20-7 Brzo-biološki razgradiv

12.3. Bioakumulacijski potencijal

ksilen

CAS: 1330-20-7 Nije bioakumulativan

12.4. Pokretljivost u tlu

ksilen

CAS: 1330-20-7 Mobilan

12.5. Rezultati procjene svojstava PBT i vPvB

Prema dostupnim podacima proizvod ne sadrži PBT/vPvB u postotku većem $\geq 0.1\%$.

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. Poslati ovlaštenim postrojenjima za odlaganje ili na spaljivanje pod kontroliranim uvjetima. Pri tome se pridržavati vrijedećih lokalnih i državnih regulativa.

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



14.1. UN broj ili identifikacijski broj

1263

14.2. Ispravno otpremno ime prema UN-u

ADR-Naziv za otpremu: BOJE

IATA-Naziv za otpremu: PAINT

IMDG-Naziv za otpremu: PAINT

14.3. Razred(i) opasnosti pri prijevozu

ADR-Razred: 3

IATA-Razred: 3

IMDG-Razred: 3

14.4. Skupina pakiranja

ADR-Grupa pakiranja: III

IATA-Grupa pakiranja: III

IMDG-Grupa pakiranja: III

14.5. Opasnosti za okoliš

Najvažnija toksična komponenta: Ugljikovodici, C9, aromatski

Morski polutant: Da

Zagađivači okoliša: Da

IMDG-EMS: F-E, S-E

14.6. Posebne mjere opreza za korisnika

Ceste i Željeznica (ADR-RID):

ADR-Označavanje: 3

ADR - Identifikacijski broj opasnosti: -

ADR-Posebne odredbe: 163 367 650

ADR ograničenja prijevoza u tunelu:

Zrak (IATA):

IATA-Putnički zrakoplov: 355

IATA-Teretni zrakoplov: 366

IATA-Označavanje: 3

IATA-Sporedni opasnosti: -

IATA-Erg: 3L

IATA-Posebne odredbe: A3 A72 A192

More (IMDG):

IMDG-Skladištenje i rukovanje: Category A
IMDG-Segregacija: -
IMDG-Sporedni opasnosti -
IMDG-Posebne odredbe: 163 223 367 955

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, 40
Ograničenja koja se odnose na sadržane tvari: 30 (CAS 70657-70-4), 75

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

Kategorija Seveso III prema dijelu 1. Priloga 1.	Donje granične količine opasnih tvari (u tonama) - male količine	Donje granične količine opasnih tvari (u tonama) - velike količine
proizvod pripada kategoriji: P5c	5000	50000
proizvod pripada kategoriji: E2	200	500

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

Nijedna tvar nije navedena

Njemačka klasifikacija opasnosti za vodu.

Klasa 2: zagađuje vodu.

SVHC tvari:

Prema dostupnim podacima proizvod ne sadrži SVHC u postotku većem $\geq 0.1\%$.

Gornja granica vrijednosti hlapljivih organskih spojeva za EU (Direktiva 2004/42/EZ). Kat. A/h: 750 g/l; HOS < 750 g/l

15.2. Procjena kemijske sigurnosti

Procjena kemijske sigurnosti nije provedena za smjesu.

ODJELJAK 16.: Ostale informacije

Šifra Opis

EUH066	Ponavljano izlaganje može prouzročiti sušenje ili pucanje kože.
H226	Zapaljiva tekućina i para.
H304	Može biti smrtonosno ako se proguta i uđe u dišni sustav.
H312	Štetno u dodiru s kožom.
H315	Nadražuje kožu.
H319	Uzrokuje jako nadraživanje oka.
H332	Štetno ako se udiše.
H335	Može nadražiti dišni sustav.
H336	Može izazvati pospanost ili vrtoglavicu.
H373	Može uzrokovati oštećenje organa tijekom produljene ili ponavljane izloženosti ako se udiše i proguta.
H411	Otrovno za vodeni okoliš s dugotrajnim učincima.
H412	Štetno za vodeni okoliš s dugotrajnim učincima.

Šifra	Razred opasnosti i kategorija opasnosti Opis	
2.6/3	Flam. Liq. 3	Zapaljiva tekućina, kategorija 3
3.1/4/Dermal	Acute Tox. 4	Akutna toksičnost (preko kože), kategorija 4
3.1/4/Inhal	Acute Tox. 4	Akutna toksičnost (udisanje), kategorija 4
3.10/1	Asp. Tox. 1	Opasnost od aspiracije, Kategorija 1
3.2/2	Skin Irrit. 2	Nadražujuće za kožu, kategorija 2
3.3/2	Eye Irrit. 2	Nadražujuće za oči, kategorija 2
3.8/3	STOT SE 3	Specifična toksičnost za ciljane organe – jednokratno izlaganje, Kategorija 3
3.9/2	STOT RE 2	Specifična toksičnost za ciljane organe – ponavljano izlaganje, Kategorija 2
4.1/C2	Aquatic Chronic 2	Kroničnu (dugoročnu) opasnost za organizme koji žive u vodi, kategorija 2
4.1/C3	Aquatic Chronic 3	Kroničnu (dugoročnu) opasnost za organizme koji žive u vodi, kategorija 3

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

Razvrstavanje prema Uredbi (EZ) br. 1272/2008 Postupak razvrstavanja

Flam. Liq. 3, H226	Procjena na temelju sadržanih tvari
STOT SE 3, H335	Računska metoda
STOT SE 3, H336	Računska metoda
Aquatic Chronic 2, H411	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 objavljenе 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 1.: Identifikacija tvari/smjese i podaci o društvu/poduzeću
- 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 14.: Informacije o prijevozu
- ODJELJAK 15.: Informacije o propisima
- ODJELJAK 16.: Ostale informacije

Xylene

Identification of the exposure scenario

Product name: Xylene

Reach registration number: 01-2119488216-32-XXXX

CAS number: 1330-20-7

EC number: 215-535-7

Review date: 14/02/2022 rev. 3.0

USE IN COATINGS - INDUSTRIAL USE

1. Title of the exposure scenario

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

Main sector: SU3 Industrial uses

Environment

Environmental Release Categories [ERC]: ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article).

Specific Environmental Release Category [SPERC]: ESVOC SPERC 4.3a.v1

Worker

Process categories:

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.

PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.

PROC4 Production of chemicals with the possibility of exposure.

PROC5 Mixing or blending in batch processes

PROC7 Industrial spraying.

PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.

PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.

PROC10 Application with rollers or brushes.

PROC13 Treatment of articles by dipping and pouring.

PROC15 Use as laboratory reagent.

PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

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

Products features

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

Easily biodegradable.

Amounts used:

Annual amount per site: 2500 tonnes

Frequency and duration of use

Issue days: 300 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air

Air release rate produced by the process (initial release prior to risk management measures): 0.98

Emission factor - water

Waste water release rate produced by the process (initial release prior to risk management measures): 0.007

Emission factor - soil

Soil release rate produced by the process (initial release prior to risk management measures): 0

Environmental factors that are not influenced by risk management

Dilution

Local fresh water dilution factor: 10

Local seawater dilution factor: 100

Risk management measures

Sewage Treatment Plant Data (STP)

Estimated substance removal from waste water via domestic sewage treatment: 95.8%

Assumed domestic sewage treatment plant flow: 2000 m³/day

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

Air:

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

Water:

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

Ground:

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

Conditions and measures for external treatment of waste

Sludge treatment:

Do not spread industrial sludge on natural soils. Sewerage sludge should be burned, stored or regenerated.

Waste treatment:

No waste of the substance is formed during production.

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

Products features

Form:

Liquid, vapor pressure 0.5 - 10 kPa at STP

Concentration information: Includes concentrations up to 100%, unless otherwise indicated.

Quantities used

Not applicable.

Frequency and duration of use

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

Other operational conditions affecting worker exposure

Temperature: (unless stated differently) assumes use at not more than 20°C above ambient temperature.

Ventilation Rate: Ensure a sufficient amount of controlled ventilation (10 to 15 air changes per hour). Assumes a good basic standard of occupational hygiene is implemented.

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

Technical protective measures:

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

Risk management measures:

PROC7 Industrial spraying.

Manual spraying.

Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure:

Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.

Maximum allowable site tonnage (M_{safe}), based on release following total waste water treatment removal: 9874 kg/day

3. Exposure Verification (Health 1)

Exposure

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

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

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

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

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

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

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

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

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

USE IN COATINGS - PROFESSIONAL USE

1. Title of the exposure scenario

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

Main sector: SU22 Professional uses

Environment

Environmental Release Categories [ERC]:

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

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor).

ERC8c Widespread use leading to inclusion into/onto article (indoor).

ERC8f Widespread use leading to inclusion into/onto article (outdoor).

Specific Environmental Release Category [SPERC]: ESVOC SPERC 8.3b.v1

Worker

Process categories:

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.

PROC 3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.

PROC4 Production of chemicals with the possibility of exposure.

PROC5 Mixing or blending in batch processes

PROC8a Transfer of a substance or preparation (charging/discharging) at non-dedicated facilities.

PROC8a Transfer of substance or mixture (charging/discharging) at non-dedicated facilities.

PROC10 Application with rollers or brushes.

PROC11 Non-industrial spray application.

PROC13 Treatment of articles by dipping and pouring.

PROC15 Use as laboratory reagent.

PROC19 Manual activities with direct contact.

PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles.

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

Products features

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

Quantities used

Annual amount per site: 10 tonnes

Frequency and duration of use

Issue days: 365 days/year

Additional operating conditions relating to environmental exposure

Emission factor - air

Air release rate produced by the process (initial release prior to risk management measures): 0.98

Emission factor - water

Waste water release rate produced by the process (initial release prior to risk management measures): 0.01

Emission factor - soil

Soil release rate produced by the process (initial release prior to risk management measures): 0.01

Environmental factors that are not influenced by risk management

Dilution

Local fresh water dilution factor: 10

Local seawater dilution factor: 100

Risk management measures

Sewage Treatment Plant Data (STP)

Estimated substance removal from waste water via domestic sewage treatment 95.8%

Assumed domestic sewage treatment plant flow: 2000 m³/day

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

Air: Treat air emission to provide a typical removal efficiency of 0%.

Water: The typical on-site purification technique has a removal efficiency of 95.8%.

Conditions and measures for external treatment of waste

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

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

Products features

Form:

Liquid, vapor pressure 0.5 - 10 kPa at STP

Concentration information:

Includes concentrations up to 100%, unless otherwise indicated.

Quantities used

Not applicable.

Frequency and duration of use

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

Other operational conditions affecting worker exposure

Temperature:

(unless stated differently) assumes use at not more than 20°C above ambient temperature.

Ventilation Rate:

Provide a good standard of controlled ventilation (10 to 15 air changes per hour) or ensure operation is undertaken outdoors.

Assumes a good basic standard of occupational hygiene is implemented.

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

Technical protective measures:

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

Organizational measures to prevent/limit releases, dispersion and exposure

Organizational measures

Avoid activities with an exposure of more than 4 hours.

Hand Application - Finger Paints, Chalks, Stickers:

Limit the amount of substance in the mixture to 5%.

Risk management measures

Wear protective gloves according to EN 374, resistant to solvents.

PROC10 Application with rollers or brushes.

PROC11 Non-industrial spray application. Outdoor use.

PROC13 Treatment of articles by dipping and pouring. Outdoor use.

Wear respiratory protection in accordance with EN 140 with filter type A or better.

3. Verification of exposure (Environment 1)

Environmental exposure

Predicted exposures are not expected to exceed the specific risks (listed in chapter 8 of the safety datasheet), when the risk management measures/operational conditions outlined in section 2 are implemented.

Maximum allowable site tonnage (M_{safe}), based on release following total waste water treatment removal: 5969 kg/day

3. Exposure Verification (Health 1)

Exposure

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

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

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

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

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

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

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

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

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

Hydrocarbons, C9, aromatics

Substance identification

Chemical Name: Hydrocarbons, C9, aromatics

EC number: 918-668-5

Date - Version: 31/05/2017

USE IN COATINGS. - INDUSTRIAL USE

SECTION 1: TITLE

List of use descriptors

Name of identified use: Use in coatings - Industrial use

Process categories: PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC10, PROC13, PROC15

End use sector: SU03

Subsequent service life relevant to that use: No

Environmental Release Categories: ERC04, ESVOC SpERC 4.3a.v1

Market sector by type of chemical product: Not applicable.

Article category in relation to subsequent service life: Not applicable.

Contributing scenarios - Environment

Use in coatings

Contributing scenarios - Health

Use in coatings

Processes and activities covered by the exposure scenario

It applies to use in coatings (paints, inks, adhesives, etc.) in closed or contained systems, including accidental exposures during use (including receipt, storage, preparation and transfer of materials from containers for bulk and semi-bulk transport, application activities and film formation) and equipment cleaning, maintenance and related laboratory activities

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE

Product features

The substance is a complex UVCB substance. - Mostly hydrophobic.

Quantity used

Fraction of EU tonnage used in region 0.1

Regional use tonnage 7600

Fraction of regional tonnage used locally 1

Annual site tonnage 7600

Maximum daily site tonnage 25000

Frequency and duration of use

Continuous release - Issue days: 300

Environmental factors not influenced by risk management

Local fresh water dilution factor: 10

Local marine water dilution factor: 100

Other conditions affecting environmental exposure

Fraction of release to air from process (initial release before RMMs): 0.98

Fraction of release to wastewater from process (initial release before RMMs): 0.0007

Fraction of release to soil from process (initial release before RMMs): 0

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

Common practices vary across sites thus conservative process release estimates are used.

On-site conditions and technical measures to reduce or limit discharges, emissions to air and releases to soil

Risk from environmental exposure is driven by freshwater sediment.

Prevent discharge of undissolved substance to wastewater, or recover it from wastewater on site. If discharging to municipal sewage treatment plant, no on-site wastewater treatment is required.

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

Treat wastewater on site (prior to receiving water discharge) to provide the required removal efficiency of $\geq 77.7\%$.

If discharged into a domestic sewage treatment plant, ensure the required wastewater removal efficiency of $\geq 0\%$

Conditions and measures related to sewage treatment plants

Estimated removal of the substance from wastewater by on-site treatment: 93.6%

Total efficiency of removal from wastewater after on-site and off-site (municipal sewage treatment plant) RMMs: 93.6%

Maximum allowable site tonnage (MSafe) based on release following total removal of wastewater for treatment: 88000

Assumed on-site sewage treatment plant flow: 2000

Conditions and measures related to the external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to the external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations.

CONTRIBUTING SCENARIO CONTROLLING WORKER EXPOSURE

Concentration of substance in mixture or product

Applies to a percentage of up to 100% of the substance in the product (unless otherwise specified).

Physical state

Liquid, vapour pressure 0.5 - 10 kPa at standard temperature and pressure.

Quantity used

No limit.

Frequency and duration of use

Applies to daily exposures of up to 8 hours.

Other conditions regarding workers' exposure

Assumes use at not more than 20°C above ambient temperature, unless otherwise specified. Assumes a good basic standard of occupational hygiene is implemented.

CONTRIBUTING SCENARIOS - OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

General exposures (closed systems)

No other specific measures identified.

General exposures (closed systems). With sample collection. Use in contained systems.

No other specific measures identified.

Film formation - Force drying (50-100 °C).) Stoving (>100°C). UV/EB radiation curing. Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Provide extract ventilation in points where emissions occur.

Mixing operations. General exposures (closed systems).

No other specific measures identified.

Film formation - Air drying.

Provide extract ventilation in points where emissions occur.

Preparation of material for application. Mixing operations (open systems).

Provide extract ventilation in points where emissions occur.

Spraying (automatic/robotic).

Carry out in a vented booth provided with laminar airflow.

Manual spraying.

Provide enhanced general ventilation by mechanical means. Wear a respirator conforming to EN140 with type A/P2 filter or better.

Material transfers.

Provide extract ventilation in points where emissions occur.

Roller, spreader, flow application.

Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Enamelling, dipping and pouring.

Provide extract ventilation in points where emissions occur.

Laboratory activities.

No other specific measures identified.

Material transfers. Transfers in drums/batch. Transfer/pouring from containers.

Provide material transfer points with extract ventilation.

Material transfers. Transfers in drums/batch. Transfer/pouring from containers.

Wear a respirator conforming to EN140 with type A/P2 filter or better.

Production of preparations or articles by tableting, compression, extrusion or pelletising.

Provide enhanced general ventilation by mechanical means.

SECTION 3: EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE - ENVIRONMENT

Exposure assessment (environment)

Not available.

Exposure estimation and reference to its source

Hydrocarbon Block Method (Petrisk)

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE - WORKERS

Exposure assessment (human)

Not available.

Exposure estimation and reference to its source

Unless otherwise specified, the ECETOC TRA tool was used to estimate workplace exposures.

SECTION 4: GUIDANCE FOR THE DOWNSTREAM USER (DU) TO ASSESS WHETHER HE/SHE IS OPERATING WITHIN THE LIMITS ESTABLISHED BY THE EXPOSURE SCENARIO

ENVIRONMENT

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using on-site/off-site technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.

HEALTH

Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in Section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Additional indication of good practices in addition to the chemical safety assessment

Environment: Not available

Health: Not available

USE IN COATINGS. - PROFESSIONAL USE

SECTION 1: TITLE

List of use descriptors

Name of identified use: Use in coatings - Professional use.

Process categories: PROC01, PROC02, PROC03, PROC04, PROC05, PROC05, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC15, PROC19

End use sector: SU22

Subsequent service life relevant to that use: No

Environmental Release Categories: ERC08a, ERC08d, ESVOC SpERC 8.3b.v1

Market sector by type of chemical product: Not applicable.

Article category in relation to subsequent service life: Not applicable.

Contributing scenarios - Environment

Use in coatings

Contributing scenarios - Health

Use in coatings

Processes and activities covered by the exposure scenario

It applies to use in coatings (paints, inks, adhesives, etc.), including exposures during use (including the receipt, storage, preparation and transfer of materials from containers for bulk and semi-bulk transport, manual application by spraying, roller, brush, spreader or similar methods and film formation) and equipment cleaning, maintenance and related laboratory activities.

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE

Product features

The substance is a complex UVCB substance. - Mostly hydrophobic.

Quantity used

Fraction of EU tonnage used in region 0.1

Regional use tonnage 2200

Fraction of regional tonnage used locally 1

Annual site tonnage 1.1

Maximum daily site tonnage 3

Frequency and duration of use

Continuous release - Issue days: 365

Environmental factors not influenced by risk management

Local fresh water dilution factor: 10

Local marine water dilution factor: 100

Other conditions affecting environmental exposure

Fraction of release to air from process (initial release before RMMs): 0.98

Fraction of release to wastewater from process (initial release before RMMs): 0.01

Fraction of release to soil from process (initial release before RMMs): 0.01

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

Common practices vary across sites thus conservative process release estimates are used.

On-site conditions and technical measures to reduce or limit discharges, emissions to air and releases to soil

Risk from environmental exposure is driven by soil.

Wastewater treatment is not required.

Treat emissions to air to ensure a typical removal efficiency: N/A.

Treat wastewater on site (prior to receiving water discharge) to provide the required removal efficiency of $\geq 0\%$.

If discharged into a domestic sewage treatment plant, ensure the required wastewater removal efficiency of $\geq 0\%$

Organizational measures to prevent/limit release from a site

Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Conditions and measures related to sewage treatment plants

Estimated removal of the substance from wastewater by on-site treatment: 93.6%

Total efficiency of removal from wastewater after on-site and off-site (municipal sewage treatment plant) RMMs: 93.6%

Maximum allowable site tonnage (MSafe) based on release following total removal of wastewater for treatment: 3300

Assumed on-site sewage treatment plant flow: 2000

Conditions and measures related to the external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to the external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations.

CONTRIBUTING SCENARIO CONTROLLING WORKER EXPOSURE

Concentration of substance in mixture or product

Applies to a percentage of up to 100% of the substance in the product (unless otherwise specified).

Physical state

Liquid, vapour pressure 0.5 - 10 kPa at standard temperature and pressure.

Quantity used

No limit.

Frequency and duration of use

Applies to daily exposures of up to 8 hours.

Other conditions regarding workers' exposure

Assumes use at not more than 20°C above ambient temperature, unless otherwise specified. Assumes a good basic standard of occupational hygiene is implemented.

CONTRIBUTING SCENARIOS - OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

General exposures (closed systems)

No other specific measures identified.

General exposures (closed systems).

No other specific measures identified.

Filling/preparation of equipment from drums or containers.

Ensure material transfers are under containment or extract ventilation.

General exposures (closed systems). Use in contained systems.

No other specific measures identified.

Preparation of material for application.

Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Film formation - Air drying. Outside.

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 1 hour.

Film formation - Air drying. Inside.

Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Avoid carrying out operation for more than 1 hour.

Preparation of material for application. Inside.

Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Avoid carrying out operation for more than 15 minutes.

Preparation of material for application. Outside.

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 15 minutes.

Material transfers. Transfers in drums/batch. Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities.

Provide enhanced general ventilation by mechanical means. Avoid carrying out operation for more than 1 hour.

Material transfers. Transfers in drums/batch. Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities.

Roller, spreader, flow application. Inside.

Provide enhanced general ventilation by mechanical means. Avoid carrying out operation for more than 1 hour.

Roller, spreader, flow application. Outside.

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 15 minutes.

Manual spraying. Inside.

Carry out in a vented booth or extracted enclosure. Limit the substance content in the product to 25%. Avoid carrying out operation for more than 15 minutes.

Manual spraying. Outside.

Ensure operation is undertaken outdoors. Limit the substance content in the product to 5%. Avoid carrying out operation for more than 15 minutes.

Manual spraying. Outside.

Ensure operation is undertaken outdoors. Limit the substance content in the product to 25%. Avoid carrying out operation for more than 1 hour. Wear a respirator conforming to EN140 with type A/P2 filter or better.

Enamelling, dipping and pouring. Inside.

Provide extract ventilation in points where emissions occur. Avoid carrying out operation for more than 1 hour.

Enamelling, dipping and pouring. Outside.

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 15 minutes.

Laboratory activities.

Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

Hand application - fingerpaints, pastels, adhesives. Outside.

Ensure doors and windows are opened. Limit the substance content in the product to 25%. Avoid carrying out operation for more than 1 hour.

Hand application - fingerpaints, pastels, adhesives. Inside.

Ensure operation is undertaken outdoors. Limit the substance content in the product to 25%. Avoid carrying out operation for more than 15 minutes.

SECTION 3: EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE - ENVIRONMENT

Exposure assessment (environment)

Not available.

Exposure estimation and reference to its source

Hydrocarbon Block Method (Petrisk)

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE - WORKERS

Exposure assessment (human)

Not available.

Exposure estimation and reference to its source

Unless otherwise specified, the ECETOC TRA tool was used to estimate workplace exposures.

SECTION 4: GUIDANCE FOR THE DOWNSTREAM USER (DU) TO ASSESS WHETHER HE/SHE IS OPERATING WITHIN THE LIMITS ESTABLISHED BY THE EXPOSURE SCENARIO

ENVIRONMENT

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using on-site/off-site technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.

HEALTH

Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in Section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Additional indication of good practices in addition to the chemical safety assessment

Environment: Not available

Health: Not available

USE IN ROAD AND CONSTRUCTION PRODUCTS. - PROFESSIONAL USE

SECTION 1: TITLE

List of use descriptors

Name of identified use: Use in road and construction products - Professional use.

Process categories: PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13

End use sector: SU22

Subsequent service life relevant to that use: No

Environmental Release Categories: ERC08d, ERC08f, ESVOC SpERC 8.15.v1

Market sector by type of chemical product: Not applicable.

Article category in relation to subsequent service life: Not applicable.

Contributing scenarios - Environment

Use in road and construction products

Contributing scenarios - Health

Use in road and construction products

Processes and activities covered by the exposure scenario

Application of surface coatings and binders in road and construction activities, including paving uses, manual mastic and in the application of roofing and water-proofing membranes.

SECTION 2: EXPOSURE CONTROLS

CONTRIBUTING SCENARIO THAT CONTROLS ENVIRONMENTAL EXPOSURE

Product features

The substance is a complex UVCB substance. - Mostly hydrophobic.

Quantity used

Fraction of EU tonnage used in region 0.1

Regional use tonnage 22

Fraction of regional tonnage used locally 0.0005

Annual site tonnage 0.011

Maximum daily site tonnage 0.03

Frequency and duration of use

Continuous release - Issue days: 365

Environmental factors not influenced by risk management

Local fresh water dilution factor: 10

Local marine water dilution factor: 100

Other conditions affecting environmental exposure

Fraction of release to air from process (initial release before RMMs): 0.95

Fraction of release to wastewater from process (initial release before RMMs): 0.01

Fraction of release to soil from process (initial release before RMMs): 0.04

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

Common practices vary across sites thus conservative process release estimates are used.

On-site conditions and technical measures to reduce or limit discharges, emissions to air and releases to soil

Risk from environmental exposure is driven by soil.

Wastewater treatment is not required.

Treat emissions to air to ensure a typical removal efficiency: N/A.

Treat wastewater on site (prior to receiving water discharge) to provide the required removal efficiency of $\geq 0\%$.

If discharged into a domestic sewage treatment plant, ensure the required wastewater removal efficiency of $\geq 0\%$

Organizational measures to prevent/limit release from a site

Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Conditions and measures related to sewage treatment plants

Estimated removal of the substance from wastewater by on-site treatment: 93.6%

Total efficiency of removal from wastewater after on-site and off-site (municipal sewage treatment plant) RMMs: 93.6%

Maximum allowable site tonnage (MSafe) based on release following total removal of wastewater for treatment: 61

Assumed on-site sewage treatment plant flow: 2000

Conditions and measures related to the external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to the external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations.

CONTRIBUTING SCENARIO CONTROLLING WORKER EXPOSURE

Concentration of substance in mixture or product

Applies to a percentage of up to 100% of the substance in the product (unless otherwise specified).

Physical state

Liquid, vapour pressure 0.5 - 10 kPa at standard temperature and pressure.

Quantity used

No limit.

Frequency and duration of use

Applies to daily exposures of up to 8 hours.

Other conditions regarding workers' exposure

Assumes use at not more than 20°C above ambient temperature, unless otherwise specified. Assumes a good basic standard of occupational hygiene is implemented.

CONTRIBUTING SCENARIOS - OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

Transfers in drums/batch. Non-dedicated structure

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 15 minutes.

Transfers in drums/batch. Special dedicated structure

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 1 hour.

Spraying/fogging by machine application. Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Ensure operation is undertaken outdoors. Limit the substance content in the product to 5%. Wear a respirator conforming to EN140 with type A/P2 filter or better. Automate activity where possible. Ensure operatives are trained to minimise exposures. Stay upwind/keep distance from source.

Manual applications, e.g. brush, roller.

Ensure operation is undertaken outdoors. Limit the substance content in the product to 5%.

Transfers in drums/batch. Special dedicated structure. Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 1 hour.

Spraying/fogging by machine application.

Ensure operation is undertaken outdoors. Avoid carrying out operation for more than 4 hours. Wear a respirator conforming to EN140 with type A/P2 filter or better. Wear chemically resistant gloves (tested to EN374) and provide specific employee training.

Enamelling, dipping and pouring.

Ensure operation is undertaken outdoors. Wear a respirator conforming to EN140 with type A/P2 filter or better.

Cleaning and maintenance of equipment

Ensure operation is undertaken outdoors. Store drainage liquids in sealed containers pending disposal or for subsequent recycling. Drain system before equipment downtime or maintenance.

SECTION 3: EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE - ENVIRONMENT

Exposure assessment (environment)

Not available.

Exposure estimation and reference to its source

Hydrocarbon Block Method (Petrisk)

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE - WORKERS

Exposure assessment (human)

Not available.

Exposure estimation and reference to its source

Unless otherwise specified, the ECETOC TRA tool was used to estimate workplace exposures.

SECTION 4: GUIDANCE FOR THE DOWNSTREAM USER (DU) TO ASSESS WHETHER HE/SHE IS OPERATING WITHIN THE LIMITS ESTABLISHED BY THE EXPOSURE SCENARIO

ENVIRONMENT

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using on-site/off-site technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.

HEALTH

Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in Section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Additional indication of good practices in addition to the chemical safety assessment

Environment: Not available

Health: Not available

2-methoxy-1-methylethyl acetate

Substance identification

Chemical Name: 2-methoxy-1-methylethyl acetate

CAS number: 108-65-6

Date - Version: 02/08/2021 18.0

4. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants

SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

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

Operating conditions

Yearly amount used in EU: 63,050,000 kg

Daily amount per site: 105.087 kg

Minimum continuous emission days per year: 300

Emission factor to air: 27%

Emission factor in water: 2%

Emission factor in soil: 0.1%

Releases based on A&B tables from TGD 2003

Freshwater dilution factor: 10

Marine water dilution factor: 100

Risk management measures

Treat air emissions to provide a typical removal efficiency of 70%.

Prevent discharge of undissolved substance, or recover from wastewater.

Type of treatment plant: Municipal sewage treatment plant.

Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%

Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.1338

Risk from environmental exposure is driven by freshwater and marine water.

Maximum safe use amount: 79,180 kg/day

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 0.04 mg/m³

Risk Characterization Ratio (RCR): 0.0001

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 1.37 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.5

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 1.37 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 93.85 mg/m³

Risk Characterization Ratio (RCR): 0.25

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 75.08 mg/m³

Risk Characterization Ratio (RCR): 0.2

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 46.93 mg/m³

Risk Characterization Ratio (RCR): 0.13

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 2.14 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

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

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 281.56 mg/m³

Risk Characterization Ratio (RCR): 0.76

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 8.57 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 5.49 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 3.43 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

5. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in industrial plants

SU3; ERC4; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

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

Operating conditions

Yearly amount used in EU: 2,600,000 kgs

Daily amount per site: 430kg

Minimum continuous emission days per year: 300

Emission factor to air: 80%

Emission factor in water: 10%

Emission factor in soil: 0.1%

Releases based on A&B tables from TGD 2003

Freshwater dilution factor: 10

Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.

Type of treatment plant: Municipal sewage treatment plant.

Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%

Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029

Risk from environmental exposure is driven by freshwater and marine water.

Maximum safe use amount: 140.104 kg/day

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 7.51 mg/m³

Risk Characterization Ratio (RCR): 0.02

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 1.37 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Operation is carried out at elevated temperature ($> 20^\circ\text{C}$ above ambient temperature).

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 1.37 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 18.77 mg/m³

Risk Characterization Ratio (RCR): 0.05

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 15.02 mg/m³

Risk Characterization Ratio (RCR): 0.04

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 8.57 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.17

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 27.43 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 3.43 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.07

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Industrial

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 7.51 mg/m³

Risk Characterization Ratio (RCR): 0.02

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

7 USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations

SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

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

Operating conditions

Yearly amount used in EU: 2,600,000 kgs

Daily amount per site: 433 kg

Minimum continuous emission days per year: 300

Emission factor to air: 80%

Emission factor in water: 10%

Emission factor in soil: 0.1%

Releases based on A&B tables from TGD 2003

Freshwater dilution factor: 10

Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.

Type of treatment plant: Municipal sewage treatment plant.

Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%

Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029

Risk from environmental exposure is driven by freshwater and marine water.

Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

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

Operating conditions

Yearly amount used in EU: 2,600,000 kgs

Daily amount per site: 433 kg

Minimum continuous emission days per year: 300

Emission factor to air: 80%

Emission factor in water: 10%

Emission factor in soil: 0.1%

Releases based on A&B tables from TGD 2003

Freshwater dilution factor: 10

Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.

Type of treatment plant: Municipal sewage treatment plant.

Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%

Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029

Risk from environmental exposure is driven by freshwater and marine water.

Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 0.04 mg/m³

Risk Characterization Ratio (RCR): 0.0001

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure.

Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.

The use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

Covered use descriptors: PROC2: Use in closed, continuous process with occasional controlled exposure.

General exposure. Use in confined systems (closed system). Filling/Preparation of equipment required for drums and containers.

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Operation is carried out at elevated temperature ($> 20^\circ\text{C}$ above ambient temperature).

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 75.08 mg/m³

Risk Characterization Ratio (RCR): 0.2

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 1.37 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 93.85 mg/m³

Risk Characterization Ratio (RCR): 0.25

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure.

The use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 269.79 mg/m³

Risk Characterization Ratio (RCR): 0.71

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 262.79 mg/m³

Risk Characterization Ratio (RCR): 0.71

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 187.71 mg/m³

Risk Characterization Ratio (RCR): 0.51

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

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

If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 262.79 mg/m³

Risk Characterization Ratio (RCR): 0.71

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 5.49 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.11

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Carry out in a vented booth or extracted enclosure. Effectiveness: 80%.

Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 2.14 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.04

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Wear a respirator conforming to EN140 with type A filter or better. Effectiveness: 90%.

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

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 131.4 mg/m³

Risk Characterization Ratio (RCR): 0.36

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 21.43 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.42

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Alternatively: Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 262.79 mg/m³

Risk Characterization Ratio (RCR): 0.71

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 100\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Wear chemically resistant gloves in combination with "basic" employee training. Effectiveness: 90%.

If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 262.79 mg/m³

Risk Characterization Ratio (RCR): 0.71

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 14.14 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.28

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤100%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Wear chemically resistant gloves in combination with "basic" employee training.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

8. USE IN COATINGS. - USE IN INDUSTRIAL PLANTS

Short title of the exposure scenario: Use in coatings. - Use in professional installations

SU22; ERC8a, ERC8d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19

EXPOSURE CONTROL AND RISK MANAGEMENT MEASURES

EXPOSURE SCENARIO CONSIDERED

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

Operating conditions

Yearly amount used in EU: 2,600,000 kgs

Daily amount per site: 433 kg

Minimum continuous emission days per year: 300

Emission factor to air: 80%

Emission factor in water: 10%

Emission factor in soil: 0.1%

Releases based on A&B tables from TGD 2003

Freshwater dilution factor: 10

Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.

Type of treatment plant: Municipal sewage treatment plant.

Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%

Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029

Risk from environmental exposure is driven by freshwater and marine water.

Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

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

Operating conditions

Yearly amount used in EU: 2,600,000 kgs

Daily amount per site: 433 kg

Minimum continuous emission days per year: 300

Emission factor to air: 80%

Emission factor in water: 10%

Emission factor in soil: 0.1%

Releases based on A&B tables from TGD 2003

Freshwater dilution factor: 10

Marine water dilution factor: 100

Risk management measures

Prevent discharge of undissolved substance, or recover from wastewater.

Type of treatment plant: Municipal sewage treatment plant.

Total removal efficiency of the substance from the wastewater after Risk Management Measures and treatment in the treatment plant (5): 87.3%

Assumed treatment plant flow: 2,000 m³/day

Measures relative to the waste

Dispose of waste cans and containers according to local regulations.

Exposure estimation and reference to its source

Risk Characterization Ratio (RCR): 0.029

Risk from environmental exposure is driven by freshwater and marine water.

Maximum safe use amount: 15,141 kg/day

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Operation is carried out at elevated temperature ($> 20^\circ\text{C}$ above ambient temperature).

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 15.02 mg/m³

Risk Characterization Ratio (RCR): 0.4

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 1.37 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.03

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 18.77 mg/m³

Risk Characterization Ratio (RCR): 0.05

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Indoor/Outdoor: Indoor use.

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 75.08 mg/m³

Risk Characterization Ratio (RCR): 0.2

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 75.08 mg/m³

Risk Characterization Ratio (RCR): 0.2

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 37.54 mg/m³

Risk Characterization Ratio (RCR): 0.1

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 6.86 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.14

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 75.08 mg/m³

Risk Characterization Ratio (RCR): 0.2

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 27.43 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.54

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%

Indoor/Outdoor: Outdoor use.

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥0 - ≤5%

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Wear chemically resistant gloves in combination with "basic" employee training. Effectiveness: 90%.

If there is no general ventilation, ensure that operations are carried out outdoors.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 262.79 mg/m³

Risk Characterization Ratio (RCR): 0.71

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 10.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.21

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Wear chemically resistant gloves in combination with "basic" employee training.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 75.08 mg/m³

Risk Characterization Ratio (RCR): 0.2

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 13.71 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.27

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Indoor/Outdoor: Indoor use.

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Ensure that operations are carried out externally.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 7.51 mg/m³

Risk Characterization Ratio (RCR): 0.02

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 0.34 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.01

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

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

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Worker - inhalation, long-term - systemic.

Exposure estimation: 75.08 mg/m³

Risk Characterization Ratio (RCR): 0.2

Evaluation method: ESIG GES tool, Operator. Worker - dermal, long-term - systemic.

Exposure estimation: 28.29 mg/kg/day (body weight)

Risk Characterization Ratio (RCR): 0.56

Guidance for downstream users

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

EXPOSURE SCENARIO CONSIDERED

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

Area of use: Professional

Operating conditions

Substance concentration: 1-methoxy-2-propanol content: ≥ 0 - $\leq 5\%$

Physical state: liquid, medium volatility

Duration and frequency of application: 480 mins. 5 days a week

Indoor/Outdoor: Outdoor use.

Assumes use at not more than 20°C above ambient temperature.

Risk management measures

Wear suitable gloves compliant with EN ISO 374-1.

Exposure estimation and reference to its source

Evaluation method: ESIG GES tool, Operator. Workers - all relevant routes of exposure

If the operating conditions identified and risk management measures are applied, the use has been assessed as safe.

Guidance for downstream users

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