VEILIGHEIDSINFORMATIEBLAD

Overeenkomstig Verordening (EG) Nr. 1907/2006 (REACH)

GASOLINE

Versienummer: 2.0. Herziening: 01.12.2023
Vervangt de versie van 14.12.2021 (1. 1) SDS02

RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

1.1 Productidentificatie

	Handelsnaam	**GASOLINE**
	Registratienummer (REACH)	niet relevant (mengsel)
1.1.6	Unieke formule-identificatie (UFI)	Q300-303Y-S00H-CCEA
	Andere identificatiemiddelen	
	Andere naam/namen	Gasoline Octane > 95 < 98, Gasoline Octane > 98 / Superplus, Euro 95, Eurobob UMS (Unleaded Motor Spirit), MoGas (Motor Gasoline), Blue one 95, Base ethanolable, SP98

1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik

Relevant geïdentificeerde gebruiken	Brandstoffen Distributie

1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad

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1.4 Telefoonnummer voor noodgevallen

Land	Naam	Telefoon
Nederland	Nationaal Vergiftigingen Informatie Centrum (UMC Utrecht) Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen	+31 88 755 8000

RUBRIEK 2: Identificatie van de gevaren

2.1 Indeling van de stof of het mengsel

Indeling overeenkomstig Verordening (EG) Nr. 1272/2008 (CLP)

Rubriek	Gevarenklasse	Categorie	Gevarenklasse en categorie	Gevarenaanduiding
2.6	ontvlambare vloeistof	1	Flam. Liq. 1	H224
3.2	huidcorrosie /-irritatie	2	Skin Irrit. 2	H315
3.5	mutageniteit in geslachtscellen	1B	Muta. 1B	H340
3.6	kankerverwekkendheid	1B	Carc. 1B	H350
3.7	voortplantingstoxiciteit	2	Repr. 2	H361d

Rubriek	Gevarenklasse	Categorie	Gevarenklasse en categorie	Gevarenaanduiding
3.8D	specifieke doelorgaantoxiciteit bij eenmalige blootstelling (narcotiserende werking, slaperigheid)	3	STOT SE 3	H336
3.10	aspiratiegevaar	1	Asp. Tox. 1	H304
4.1C	chronisch gevaar voor het aquatisch milieu	2	Aquatic Chronic 2	H411

Zie RUBRIEK 16 voor de volledige tekst van H-zinnen (gevarenaanduidingen)

De belangrijkste nadelige fysisch-chemische, gezondheids- en milieueffecten

Product is brandbaar en kan tot ontsteking gebracht worden door potentiële ontstekingsbronnen. Lekkage en bluswater kunnen tot verontreiniging van waterwegen leiden.

2.2 Etiketteringselementen

Etikettering overeenkomstig Verordening (EG) Nr. 1272/2008 (CLP)

- signaalwoord: Gevaar

- pictogrammen

GHS02, GHS07, GHS08, GHS09

- gevarenaanduidingen

H224	Zeer licht ontvlambare vloeistof en damp.
H304	Kan dodelijk zijn als de stof bij inslikken in de luchtwegen terechtkomt.
H315	Veroorzaakt huidirritatie.
H336	Kan slaperigheid of duizeligheid veroorzaken.
H340	Kan genetische schade veroorzaken.
H350	Kan kanker veroorzaken.
H361d	Wordt ervan verdacht het ongeboren kind te schaden.
H411	Giftig voor in het water levende organismen, met langdurige gevolgen.

- veiligheidsaanbevelingen

P201	Alvorens te gebruiken de speciale aanwijzingen raadplegen.
P210	Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.
P273	Voorkom lozing in het milieu.
P280	Beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming dragen.
P301+P310	NA INSLIKKEN: onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.
P331	GEEN braken opwekken.
P403+P233	Op een goed geventileerde plaats bewaren. In goed gesloten verpakking bewaren.

- gevaarlijke bestanddelen ter etikettering

Bevat: benzine; 2-ethoxy-2-methylpropane; 2-methoxy-2-methylbutaan.

2.3 Andere gevaren

Dampen zijn zwaarder dan lucht, verspreiden zich via de grond en vormen samen met lucht een explosief mengsel.

Resultaten van PBT- en zPzB-beoordeling

Dit mengsel bevat geen stoffen die na beoordeling als een PBT- of zPzB-stof worden beschouwd.

Hormoonontregelende eigenschappen

Bevat geen hormoonontregelaar (ED) in een concentratie van ≥ 0,1%.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

3.1 Stoffen

Niet relevant (mengsel).

3.2 Mengsels

Beschrijving van het mengsel

Naam van de stof	Identificatie	Gew.-%	Indeling overeenkomstig met 1272/2008/EG	Pictogram-men	Noten
benzine	CAS No 86290-81-5 EC No 289-220-8 Catalogus nr. 649-378-00-4 REACH reg. nr. 01-2119494189-23-xxxx	≤ 100	Flam. Liq. 1 / H224 Skin Irrit. 2 / H315 Muta. 1B / H340 Carc. 1B / H350 Repr. 2 / H361d STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 2 / H411		GHS-HC IOELV P(a)
tert-butylmethyl-ether	CAS No 1634-04-4 EC No 216-653-1 Catalogus nr. 603-181-00-X REACH reg. nr. 01-2119452786-27-xxxx	≤ 20	Flam. Liq. 2 / H225 Skin Irrit. 2 / H315		IOELV
2-ethoxy-2-methyl-propane	CAS No 637-92-3 EC No 211-309-7 REACH reg. nr. 01-2119452785-29-xxxx	≤ 20	Flam. Liq. 2 / H225 STOT SE 3 / H336		

Naam van de stof	Identificatie	Gew.-%	Indeling overeenkomstig met 1272/2008/EG	Pictogram-men	Noten
2-methoxy-2-methylbutaan	CAS No 994-05-8 EC No 213-611-4 Catalogus nr. 603-213-00-2 REACH reg. nr. 01-2119453236-41-xxxx	≤ 15	Flam. Liq. 2 / H225 Acute Tox. 4 / H302 STOT SE 3 / H336		
ethanol	CAS No 64-17-5 EC No 200-578-6 Catalogus nr. 603-002-00-5 REACH reg. nr. 01-2119457610-43-xxxx	≤ 10	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319		GHS-HC

Noten

GHS-HC: geharmoniseerde indeling (de indeling van de stof is overeenkomstig met de aantekening in de lijst overeenkomstig 1272/2008/EG, Annex VI)
IOELV: stof met een gemeenschappelijke indicatieve grenswaarde voor beroepsmatige blootstelling
P(a): De indeling als kankerverwekkend of mutageen is verplicht. De stof bevat minstens 0,1 % (g/g) benzeen (EINECS-nr. 200-753-7)

Naam van de stof	Identificatie	Specifieke concentratiegrenzen	M-Factoren	ATE	Blootstellingsroute
2-methoxy-2-methylbutaan	CAS No 994-05-8 EC No 213-611-4	-	-	500 $^{mg}/_{kg}$	oraal
ethanol	CAS No 64-17-5 EC No 200-578-6	Eye Irrit. 2; H319: C ≥ 50 %	-	-	

Opmerkingen

Zie RUBRIEK 16 voor de volledige tekst van H-zinnen (gevarenaanduidingen). Alle vermelde percentages zijn gewichtspercentages tenzij anders vermeld. Benzeen ≥ 0.1% w/w; tolueen ≥ 3% w/w; n-hexaan ≥ 3% w/w.

RUBRIEK 4: Eerstehulpmaatregelen

4.1 Beschrijving van de eerstehulpmaatregelen

Algemene opmerkingen

Laat het slachtoffer niet onbeheerd achter. Verplaats slachtoffer uit de gevarenzone. Houd het slachtoffer warm, rustig en bedekt. Bij bewusteloosheid het slachtoffer in stabiele zijligging leggen. Niets via de mond toedienen. Verontreinigde kleding onmiddellijk uittrekken. Bij twijfel of bij aanhoudende symptomen een arts raadplegen.

Bij inademing

Voor verse lucht zorgen. Bij onregelmatige ademhaling of ademstilstand direct een arts raadplegen en eerste hulp toedienen. In geval van irritatie aan de luchtwegen, een arts raadplegen.

Bij huidcontact

Met veel water en zeep wassen. Bij huidirritatie of uitslag: een arts raadplegen.

Bij oogcontact

Minstens 15 minuten met schoon, vloeiend water spoelen terwijl de oogleden worden opengehouden. Contactlenzen verwijderen, indien mogelijk. Blijven spoelen. Bij aanhoudende oogirritatie: een arts raadplegen.

Bij inslikken

Mond met water spoelen (alleen als de persoon bij bewustzijn is). GEEN braken opwekken. Bij onwel voelen een ANTIGIFCENTRUM of een arts raadplegen. Bij braken op aspiratiegevaar letten. Onmiddellijk een arts raadplegen.

4.2 Belangrijkste acute en uitgestelde symptomen en effecten

Uitgestelde effecten kunnen worden verwacht na kortstondige of langdurige blootstelling. Narcotische werking. Misselijkheid. Duizeligheid. Dood als gevolg van aspiratie.

4.3 Vermelding van eventueel noodzakelijke onmiddellijke medische verzorging en speciale behandeling

Voor specialistisch advies dient de arts contact op te nemen met het antigifcentrum.

RUBRIEK 5: Brandbestrijdingsmaatregelen

5.1 Blusmiddelen

Geschikte blusmiddelen

Waternevel; Droog bluspoeder; Koolstofdioxide (CO_2); Alcohol bestendig schuim

Ongeschikte blusmiddelen

Volle waterstraal.

5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt

Bij ontoereikende ventilatie en/of bij gebruik ontstaan van explosieve/licht ontvlambare damp-luchtmengsels mogelijk. Dampen van oplosmiddelen zijn zwaarder dan lucht en kunnen zich over de vloer verspreiden. Op plaatsen waar geen ventilatie mogelijk is zoals onbeluchte ondergrondse plaatsen bijv. putten, kanalen en schachten is met de aanwezigheid van brandbare stoffen rekening te houden. Dampen kunnen samen met lucht een explosief mengsel vormen. Gevaar van het barsten van de container. Op plaatsen waar geen ventilatie mogelijk is zoals onbeluchte ondergrondse plaatsen bijv. putten, kanalen en schachten is met de aanwezigheid van brandbare stoffen rekening te houden.

Gevaarlijke verbrandingsproducten

Tijdens brand kunnen gevaarlijke dampen/rook ontstaan. Stikstofoxiden (NO_x). Koolstofmonoxide (CO). Koolstofdioxide (CO_2).

5.3 Advies voor brandweerlieden

In geval van brand en/of explosie inademen van rook vermijden. Brandbestrijdingsmaatregelen op de omgeving afstemmen. Bluswater niet in riolering of oppervlaktewater laten vloeien. Gecontamineerd bluswater apart verzamelen. Met

normale voorzorgen vanaf een redelijke afstand blussen.

Speciaal beschermde uitrusting voor brandweerlieden

Onafhankelijke ademhalingsapparatuur (EN 133). Standaard beschermende kleding voor de brandweer.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures

Voor andere personen dan de hulpdiensten

Personen in veiligheid brengen. De getroffen zone ventileren. In geval van brand: het lek dichten als dat veilig gedaan kan worden. Alle ontstekingsbronnen wegnemen als dat veilig gedaan kan worden. Door explosiegevaar, voorkom het vrijkomen van dampen in kelders, schachten en putten.

Voor de hulpdiensten

Ademhalingsapparatuur dragen bij blootstelling aan dampen/stofdeeltjes/aerosols/gassen. Persoonlijke beschermingsmiddelen: zie rubriek 8.

6.2 Milieuvoorzorgsmaatregelen

Vermijden dat het product in afvoerkanalen, oppervlaktewater of grondwater terechtkomt. Laat de verantwoordelijke autoriteit waarschuwen als de stof in het water of in het riool terecht is gekomen. Gecontamineerd bluswater apart verzamelen.

6.3 Insluitings- en reinigingsmethoden en -materiaal

Advies over hoe het gemorste product moet worden ingesloten

Afdekken van afvoerkanalen.

Advies over hoe het gemorste product moet worden opgeruimd

Gelekte/gemorste stof opruimen. Absorberend materiaal (bijvoorbeeld zand, kiezelgoer, zuurbindmiddel, universeel bindmiddel, zaagsel). Explosieveilige elektrische/ventilatie-/verlichtings- apparatuur gebruiken.

Passende insluitingsmethoden

Gebruik van absorberende materialen.

Andere informatie met betrekking tot het lozen of vrijkomen

In geschikte behouders voor verwijdering brengen. De getroffen zone ventileren.

6.4 Verwijzing naar andere rubrieken

Gevaarlijke verbrandingsproducten: zie rubriek 5. Persoonlijke beschermingsmiddelen: zie rubriek 8. Chemisch op elkaar inwerkende materialen: zie rubriek 10. Instructies voor verwijdering: zie rubriek 13.

RUBRIEK 7: Hantering en opslag

7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel

Aanbevelingen

- maatregelen ter voorkoming van brand en aerosol- of stofvorming

Alleen buiten of in een goed geventileerde ruimte gebruiken. Voorkoming van ontstekingsbronnen. Verwijderd houden van ontstekingsbronnen - Niet roken. Voorzorgsmaatregelen treffen tegen ontladingen van statische elektriciteit. Gebruik van plaatselijke en algehele ventilatie. Door explosiegevaar, voorkom het vrijkomen van dampen in kelders, schachten en putten. Opslag - en opvangreservoir aarden. Explosieveilige elektrische/ventilatie-/verlichtings- apparatuur gebruiken. Uitsluitend vonkvrij gereedschap gebruiken. Gelekte/gemorste stof opruimen.

- specifieke opmerkingen/gegevens

Op plaatsen waar geen ventilatie mogelijk is zoals onbeluchte ondergrondse plaatsen bijv. putten, kanalen en schachten is met de aanwezigheid van brandbare stoffen rekening te houden. Dampen zijn zwaarder dan lucht, verspreiden zich via de grond en vormen samen met lucht een explosief mengsel. Dampen kunnen samen met lucht een explosief mengsel vormen. Op plaatsen waar geen ventilatie mogelijk is zoals onbeluchte ondergrondse plaatsen bijv. putten, kanalen en schachten is met de aanwezigheid van brandbare stoffen rekening te houden.

Advies inzake algemene beroepsmatige hygiëne

Na gebruik handen wassen. Niet eten, drinken of roken op plaatsen waar wordt gewerkt. Verontreinigde kleding en beschermde uitrusting uittrekken alvorens ruimten te betreden waar wordt gegeten. Verwijderd houden van eet- en drinkwaren en van diervoeder. Persoonlijke beschermingsmiddelen: zie rubriek 8.

7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten

Het beheer van de bijbehorende risico's

- explosieve atmosferen

Gesloten verpakking op een goed geventileerde plaats bewaren. Gebruik van plaatselijke en algehele ventilatie. Koel bewaren. Tegen zonlicht beschermen.

- ontvlammingsgevaar

Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken. Tegen zonlicht beschermen. Opslag - en opvangreservoir aarden.

- incompatibele stoffen of mengsels

Chemisch op elkaar inwerkende materialen: zie rubriek 10.

Beheersing van de gevolgen

Tegen uitwendige blootstelling beschermen, zoals

Hoge temperaturen. UV straling/zonlicht.

Overweging van ander advies

Op een goed geventileerde plaats bewaren. In goed gesloten verpakking bewaren.

- ventilatievereisten

Gebruik van plaatselijke en algehele ventilatie. Opslag - en opvangreservoir aarden.

- compatibele verpakkingen

Alleen toegelaten verpakkingen (bv. overeenkomstig ADR) mogen worden gebruikt.

7.3 Specifiek eindgebruik

Er is geen verdere informatie.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

8.1 Controleparameters

Nationale grenswaarden

Grenswaarden voor beroepsmatige blootstelling (grenzen voor de blootstelling op het werk)											
Land	**Stof-naam**	**CAS No**	**Iden tifi-catie**	**TGG 8 uur [ppm]**	**TGG 8 uur [mg/m³]**	**TGG 15 min [ppm]**	**TGG 15 min [mg/m³]**	**CW [ppm]**	**CW [mg/m³]**	**No-tatie**	**Bron**
EU	tolueen	108-88-3	IOELV	50	192	100	384			H	2006/15/EG

Grenswaarden voor beroepsmatige blootstelling (grenzen voor de blootstelling op het werk)											
Land	**Stof-naam**	**CAS No**	**Iden tifi-catie**	**TGG 8 uur [ppm]**	**TGG 8 uur [mg/m³]**	**TGG 15 min [ppm]**	**TGG 15 min [mg/m³]**	**CW [ppm]**	**CW [mg/m³]**	**No-tatie**	**Bron**
EU	n-hexaan	110-54-3	IOEL V	20	72						2006/15/EG
EU	tert-butyl-methyl-ether	1634-04-4	IOEL V	50	183,5	100	367				2009/161/EU
EU	benzeen	71-43-2	IOEL V	1	3,25					H	2022/431/EU
NL	benzine		GW	50	240	100	480				SC-SZW
NL	tolueen	108-88-3	GW	39	150	100	384				SC-SZW
NL	n-hexaan	110-54-3	GW	20	72	40	144				SC-SZW
NL	tert-butyl-methyl-ether	1634-04-4	GW	49	180	98	360				SC-SZW
NL	ethanol	64-17-5	GW	137	260	1.000	1.900			H	SC-SZW
NL	benzeen	71-43-2	GW	0,2	0,7					H	SC-SZW

Notatie

CW	ceilingwaarde is een grenswaarde die niet mag worden overschreden (ceiling value)
H	absorbed through the skin
TGG 15 min	kortetijdswaarde (grenswaarde voor kortstondige blootstelling): grenswaarde die niet mag worden overschreden en die geldt, voor een periode van 15 minuten (behoudens anders vermeld)
TGG 8 uur	tijd gewogen gemiddelde (grenswaarde voor langdurige blootstelling): gemeten of berekend op basis van een referentieperiode van acht uur (behoudens anders vermeld)

Opmerkingen

Benzeen-limiet EU (2022/431/EU): Grenswaarde 1 ppm (3,25 mg/m3) tot 5 april 2024. Grenswaarde 0,5 ppm (1,65 mg/m3) vanaf 5 april 2024 tot 5 april 2026.

Relevante DNEL/DMEL/PNEC en andere drempelwaarden

Relevante DNEL´s van bestanddelen van het mengsel						
Naam van de stof	**CAS No**	**Eind-punt**	**Drempel-waarde**	**Beschermings-doelstelling, route van de blootstelling**	**Gebruikt in**	**Blootstellings-duur**
tert-butylmethyl-ether	1634-04-4	DNEL	178,5 mg/m³	mens, via inademing	(industriële) medewerkers	chronisch - systemische effecten

Relevante DNEL´s van bestanddelen van het mengsel						
Naam van de stof	**CAS No**	**Eind-punt**	**Drempel-waarde**	**Beschermings-doelstelling, route van de blootstelling**	**Gebruikt in**	**Blootstellings-duur**
tert-butylmethyl-ether	1634-04-4	DNEL	357 mg/m³	mens, via inade-ming	(industriële) me-dewerkers	acuut - lokale ef-fecten
tert-butylmethyl-ether	1634-04-4	DNEL	5.100 mg/kg lg/dag	mens, via de huid	(industriële) me-dewerkers	chronisch - syste-mische effecten
tert-butylmethyl-ether	1634-04-4	DNEL	53,6 mg/m³	mens, via inade-ming	consumenten (particuliere huis-houdens)	chronisch - syste-mische effecten
tert-butylmethyl-ether	1634-04-4	DNEL	214 mg/m³	mens, via inade-ming	consumenten (particuliere huis-houdens)	acuut - lokale ef-fecten
tert-butylmethyl-ether	1634-04-4	DNEL	3.570 mg/kg lg/dag	mens, via de huid	consumenten (particuliere huis-houdens)	chronisch - syste-mische effecten
tert-butylmethyl-ether	1634-04-4	DNEL	7,1 mg/kg lg/dag	mens, oraal	consumenten (particuliere huis-houdens)	chronisch - syste-mische effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	352 mg/m³	mens, via inade-ming	(industriële) me-dewerkers	chronisch - syste-mische effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	2.800 mg/m³	mens, via inade-ming	(industriële) me-dewerkers	acuut - systemi-sche effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	105 mg/m³	mens, via inade-ming	(industriële) me-dewerkers	chronisch - lokale effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	6.767 mg/kg lg/dag	mens, via de huid	(industriële) me-dewerkers	chronisch - syste-mische effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	105 mg/m³	mens, via inade-ming	consumenten (particuliere huis-houdens)	chronisch - syste-mische effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	1.680 mg/m³	mens, via inade-ming	consumenten (particuliere huis-houdens)	acuut - systemi-sche effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	63 mg/m³	mens, via inade-ming	consumenten (particuliere huis-houdens)	chronisch - lokale effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	4.060 mg/kg lg/dag	mens, via de huid	consumenten (particuliere huis-houdens)	chronisch - syste-mische effecten
2-ethoxy-2-methyl-propane	637-92-3	DNEL	6 mg/kg lg/dag	mens, oraal	consumenten (particuliere huis-houdens)	chronisch - syste-mische effecten
2-methoxy-2-me-thylbutaan	994-05-8	DNEL	88,8 mg/m³	mens, via inade-ming	(industriële) me-dewerkers	chronisch - syste-mische effecten

Relevante DNEL´s van bestanddelen van het mengsel

Naam van de stof	CAS No	Eind-punt	Drempel-waarde	Beschermings-doelstelling, route van de blootstelling	Gebruikt in	Blootstellings-duur
2-methoxy-2-methylbutaan	994-05-8	DNEL	353,3 mg/m³	mens, via inademing	(industriële) medewerkers	acuut - systemische effecten
2-methoxy-2-methylbutaan	994-05-8	DNEL	1.601 mg/kg lg/dag	mens, via de huid	(industriële) medewerkers	chronisch - systemische effecten
2-methoxy-2-methylbutaan	994-05-8	DNEL	26,5 mg/m³	mens, via inademing	consumenten (particuliere huishoudens)	chronisch - systemische effecten
2-methoxy-2-methylbutaan	994-05-8	DNEL	212 mg/m³	mens, via inademing	consumenten (particuliere huishoudens)	acuut - systemische effecten
2-methoxy-2-methylbutaan	994-05-8	DNEL	961 mg/kg lg/dag	mens, via de huid	consumenten (particuliere huishoudens)	chronisch - systemische effecten
2-methoxy-2-methylbutaan	994-05-8	DNEL	1 mg/kg lg/dag	mens, oraal	consumenten (particuliere huishoudens)	chronisch - systemische effecten
ethanol	64-17-5	DNEL	1.900 mg/m³	mens, via inademing	(industriële) medewerkers	acuut - lokale effecten
ethanol	64-17-5	DNEL	950 mg/m³	mens, via inademing	(industriële) medewerkers	chronisch - systemische effecten
ethanol	64-17-5	DNEL	343 mg/kg lg/dag	mens, via de huid	(industriële) medewerkers	chronisch - systemische effecten
ethanol	64-17-5	DNEL	114 mg/m³	mens, via inademing	consumenten (particuliere huishoudens)	chronisch - systemische effecten
ethanol	64-17-5	DNEL	206 mg/kg lg/dag	mens, via de huid	consumenten (particuliere huishoudens)	chronisch - systemische effecten
ethanol	64-17-5	DNEL	87 mg/kg lg/dag	mens, oraal	consumenten (particuliere huishoudens)	chronisch - systemische effecten

Relevante PNEC´s van bestanddelen

Naam van de stof	CAS No	Eind-punt	Drempel-waarde	Organisme	Milieucompartimenten	Blootstellings-duur
tert-butylmethylether	1634-04-4	PNEC	47,2 mg/l	waterorganismen	water	afgifte met tussenpozen
tert-butylmethylether	1634-04-4	PNEC	5,1 mg/l	waterorganismen	zoet water	korte termijn (eenmalig)

Relevante PNEC´s van bestanddelen						
Naam van de stof	**CAS No**	**Eind-punt**	**Drempel-waarde**	**Organisme**	**Milieucompart-imenten**	**Blootstellings-duur**
tert-butylmethyl-ether	1634-04-4	PNEC	0,26 mg/l	waterorganis-men	zeewater	korte termijn (eenmalig)
tert-butylmethyl-ether	1634-04-4	PNEC	71 mg/l	waterorganis-men	rioolwaterzuive-ringsinstallaties (STP)	korte termijn (eenmalig)
tert-butylmethyl-ether	1634-04-4	PNEC	23 mg/kg	waterorganis-men	zoetwatersedi-ment	korte termijn (eenmalig)
tert-butylmethyl-ether	1634-04-4	PNEC	1,17 mg/kg	waterorganis-men	zeewatersedi-ment	korte termijn (eenmalig)
tert-butylmethyl-ether	1634-04-4	PNEC	1,56 mg/kg	terrestrische or-ganismen	bodem	korte termijn (eenmalig)
2-ethoxy-2-methyl-propane	637-92-3	PNEC	11 mg/l	waterorganis-men	water	afgifte met tus-senpozen
2-ethoxy-2-methyl-propane	637-92-3	PNEC	0,51 mg/l	waterorganis-men	zoet water	korte termijn (eenmalig)
2-ethoxy-2-methyl-propane	637-92-3	PNEC	0,017 mg/l	waterorganis-men	zeewater	korte termijn (eenmalig)
2-ethoxy-2-methyl-propane	637-92-3	PNEC	12,5 mg/l	waterorganis-men	rioolwaterzuive-ringsinstallaties (STP)	korte termijn (eenmalig)
2-ethoxy-2-methyl-propane	637-92-3	PNEC	2,86 mg/kg	waterorganis-men	zoetwatersedi-ment	korte termijn (eenmalig)
2-ethoxy-2-methyl-propane	637-92-3	PNEC	0,078 mg/kg	waterorganis-men	zeewatersedi-ment	korte termijn (eenmalig)
2-ethoxy-2-methyl-propane	637-92-3	PNEC	0,274 mg/kg	terrestrische or-ganismen	bodem	korte termijn (eenmalig)
2-methoxy-2-me-thylbutaan	994-05-8	PNEC	0,51 mg/l	waterorganis-men	zoet water	korte termijn (eenmalig)
2-methoxy-2-me-thylbutaan	994-05-8	PNEC	0,034 mg/l	waterorganis-men	zeewater	korte termijn (eenmalig)
2-methoxy-2-me-thylbutaan	994-05-8	PNEC	25 mg/l	waterorganis-men	rioolwaterzuive-ringsinstallaties (STP)	korte termijn (eenmalig)
2-methoxy-2-me-thylbutaan	994-05-8	PNEC	2,99 mg/kg	waterorganis-men	zoetwatersedi-ment	korte termijn (eenmalig)
2-methoxy-2-me-thylbutaan	994-05-8	PNEC	0,199 mg/kg	waterorganis-men	zeewatersedi-ment	korte termijn (eenmalig)
2-methoxy-2-me-thylbutaan	994-05-8	PNEC	0,301 mg/kg	terrestrische or-ganismen	bodem	korte termijn (eenmalig)

Relevante PNEC´s van bestanddelen						
Naam van de stof	**CAS No**	**Eind-punt**	**Drempel-waarde**	**Organisme**	**Milieucompart-imenten**	**Blootstellings-duur**
ethanol	64-17-5	PNEC	2,75 mg/l	waterorganis-men	water	afgifte met tus-senpozen
ethanol	64-17-5	PNEC	0,96 mg/l	waterorganis-men	zoet water	korte termijn (eenmalig)
ethanol	64-17-5	PNEC	0,79 mg/l	waterorganis-men	zeewater	korte termijn (eenmalig)
ethanol	64-17-5	PNEC	580 mg/l	waterorganis-men	rioolwaterzuive-ringsinstallaties (STP)	korte termijn (eenmalig)
ethanol	64-17-5	PNEC	3,6 mg/kg	waterorganis-men	zoetwatersedi-ment	korte termijn (eenmalig)
ethanol	64-17-5	PNEC	2,9 mg/kg	waterorganis-men	zeewatersedi-ment	korte termijn (eenmalig)
ethanol	64-17-5	PNEC	0,63 mg/kg	terrestrische or-ganismen	bodem	korte termijn (eenmalig)

8.2 Maatregelen ter beheersing van blootstelling

Passende technische maatregelen

Alleen buiten of in een goed geventileerde ruimte gebruiken. Gebruik lokale ventilatie.

Individuele beschermingsmaatregelen (persoonlijke beschermingsmiddelen)

Bescherming van de ogen/het gezicht

Veiligheidsbril met zijbescherming dragen (EN 166).

Bescherming van de huid

Beschermende kleding (EN 340 & EN ISO 13688).

Bescherming van de handen

Draag geschikte handschoenen. Geschikt zijn volgens EN 374 beproefde handschoenen tegen chemicaliën. Er wordt aangeraden om in geval van speciale applicaties de chemische bestendigheid van de boven genoemde veiligheidshand-schoenen samen met de leverancier van de handschoenen na te gaan.

- soort materiaal

Nitril rubber

- materiaaldikte

Geen informatie beschikbaar.

- doorbraaktijd van het handschoenmateriaal

Gebruik handschoenen met een minimum doorbraaktijd van het handschoenmateriaal: >480 minuten (permeatieniveau: 6).

- andere beschermingsmiddelen

Na gebruik handen grondig wassen.

Bescherming van de ademhalingsorganen

Damp niet inademen. Gebruik van plaatselijke en algehele ventilatie. Bij ontoereikende ventilatie een geschikte adembescherming dragen. Type: AX (gasfilters en combinatiefilters tegen organische verbindingen met laag kookpunt , kleurcode: bruin). In geval van hoge concentraties (zoals bij tankreiniging) een ademhalingsapparaat gebruiken (zelfstandig: SCBA/ verse lucht toevoer). (concentratie zuurstof <19.5%: draag onafhankelijke ademhalingsapparatuur).

Beheersing van milieublootstelling

Neem passende maatregelen om ongecontroleerde verspreiding in het milieu te voorkomen. Vermijden dat het product in afvoerkanalen, oppervlaktewater of grondwater terechtkomt.

RUBRIEK 9: Fysische en chemische eigenschappen

9.1 Informatie over fysische en chemische basiseigenschappen

Fysische toestand	vloeibaar
Kleur	transparant
Geur	benzine
Smelt-/vriespunt	-108,6 °C bij 101,3 kPa berekende waarde, gebaseerd op een bestanddeel van het mengsel
Kookpunt of beginkookpunt en kooktraject	25 – 200 °C bij 101,3 kPa
Ontvlambaarheid	ontvlambare vloeistof overeenkomstig GHS-criteria
Onderste en bovenste explosiegrens	LEL: 1,4 vol% UEL: 7,6 vol%
Vlampunt	<-40 °C
Zelfontbrandingstemperatuur	≥280 °C (zelfontbrandingstemperatuur (vloeistoffen en gassen))
Ontledingstemperatuur	geen gegevens beschikbaar
pH-waarde	niet bepaald
Kinematische viscositeit	<1 cSt bij 40 °C
Oplosbaarheid	niet bepaald

Verdelingscoëfficiënt n-octanol/water (logwaarde)	deze informatie is niet beschikbaar

Dampspanning	<240 kPa bij 37,8 °C

Dichtheid en/of relatieve dichtheid

Dichtheid	0,7 – 0,755 $^{g}/_{cm^3}$ bij 15 °C

Deeltjeskenmerken	niet relevant (vloeibaar)

9.2 Overige informatie

Informatie inzake fysische gevarenklassen	er is geen verdere informatie
Andere veiligheidskenmerken	er is geen verdere informatie

RUBRIEK 10: Stabiliteit en reactiviteit

10.1 Reactiviteit

Het mengsel bevat (een) reactieve stof(fen). Gevaar van ontsteking.

Bij verhitting:

Gevaar van ontsteking.

10.2 Chemische stabiliteit

Het materiaal is stabiel onder normale atmosferische omstandigheden en verwachte temperatuur en druk bij opslag en hantering.

10.3 Mogelijke gevaarlijke reacties

Sterke oxideringsmiddelen (sterk oxiderend).

10.4 Te vermijden omstandigheden

Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.

Indicaties hoe brand en ontploffingen vermeden kunnen worden

Explosieveilige elektrische/ventilatie-/verlichtings- apparatuur gebruiken. Uitsluitend vonkvrij gereedschap gebruiken. Voorzorgsmaatregelen treffen tegen ontladingen van statische elektriciteit. Gebruik lokale ventilatie.

10.5 Chemisch op elkaar inwerkende materialen

Oxideringsmiddelen (oxiderend). Zuren.

10.6 Gevaarlijke ontledingsproducten

Bekende en redelijkerwijs te verwachten gevaarlijke ontledingsproducten, die bij gebruik, opslag, lozing en verhitting worden geproduceerd, zijn niet bekend. Gevaarlijke verbrandingsproducten: zie rubriek 5.

RUBRIEK 11: Toxicologische informatie

11.1 Informatie over gevarenklassen als omschreven in Verordening (EG) nr. 1272/2008

Er zijn geen testgegevens voor het mengsel als geheel beschikbaar.

Indelingsprocedure

De methode voor indeling van mengsels op basis van de bestanddelen van het mengsel (somformule).

Indeling overeenkomstig GHS (1272/2008/EG, CLP)

Acute toxiciteit

Is niet als acuut toxisch in te delen.

Acute toxiciteitsschatting (ATE) van de bestanddelen			
Naam van de stof	**CAS No**	**Blootstellingsroute**	**ATE**
2-methoxy-2-methylbutaan	994-05-8	oraal	500 $^{mg}/_{kg}$

Acute toxiciteit van de bestanddelen					
Naam van de stof	**CAS No**	**Blootstel-lingsroute**	**Eindpunt**	**Waarde**	**Species**
benzine	86290-81-5	oraal	LD50	>5.000 $^{mg}/_{kg}$	rat
benzine	86290-81-5	dermaal	LD50	>2.000 $^{mg}/_{kg}$	konijn
tert-butylmethylether	1634-04-4	oraal	LD50	>2.000 $^{mg}/_{kg}$	rat
tert-butylmethylether	1634-04-4	inademing: damp	LC50	85 $^{mg}/_{l}$/4h	rat
tert-butylmethylether	1634-04-4	dermaal	LD50	>2.000 $^{mg}/_{kg}$	rat
2-ethoxy-2-methylpropane	637-92-3	oraal	LD50	>2.003 $^{mg}/_{kg}$	rat
2-ethoxy-2-methylpropane	637-92-3	inademing: damp	LC50	>5,88 $^{mg}/_{l}$/4h	rat
2-ethoxy-2-methylpropane	637-92-3	dermaal	LD50	>2.000 $^{mg}/_{kg}$	konijn
2-methoxy-2-methylbutaan	994-05-8	oraal	LD50	2.417 $^{mg}/_{kg}$	rat
2-methoxy-2-methylbutaan	994-05-8	inademing: damp	LC50	>5.400 $^{mg}/_{m^3}$/ 4h	rat
2-methoxy-2-methylbutaan	994-05-8	dermaal	LD50	>2.000 $^{mg}/_{kg}$	konijn
ethanol	64-17-5	oraal	LD50	10.470 $^{mg}/_{kg}$	rat
ethanol	64-17-5	inademing: damp	LC50	124,7 $^{mg}/_{l}$/4h	rat

Huidcorrosie/-irritatie

Veroorzaakt huidirritatie.

Ernstig oogletsel/oogirritatie

Is niet als zwaar oogletsel veroorzakend of irriterend voor de ogen in te delen.

Sensibilisatie van de luchtwegen of van de huid

Is niet als inhalatie of huidallergeen in te delen.

Mutageniteit in geslachtscellen

Kan genetische schade veroorzaken.

Kankerverwekkendheid

Kan kanker veroorzaken.

Voortplantingstoxiciteit

Wordt ervan verdacht het ongeboren kind te schaden.

Samenvatting van de evaluatie van CMR-eigenschappen

Het product bevat ingrediënten die voorkomen op de SZW-lijst van kankerverwekkende, mutagene en voor de voortplanting giftige stoffen. Zie hoofdstuk 15 voor meer informatie over de ingrediënten.

Specifieke doelorgaantoxiciteit bij eenmalige blootstelling

Kan slaperigheid of duizeligheid veroorzaken.

Specifieke doelorgaantoxiciteit bij herhaalde blootstelling

Is niet als toxisch voor specifieke doelorganen (herhaalde blootstelling) in te delen.

Gevaar bij inademing (aspiratiegevaar).

Kan dodelijk zijn als de stof bij inslikken in de luchtwegen terechtkomt.

11.2 Informatie over andere gevaren

Hormoonontregelende eigenschappen

Bevat geen hormoonontregelaar (ED) in een concentratie van ≥ 0,1%.

Overige informatie

Er is geen verdere informatie.

RUBRIEK 12: Ecologische informatie

12.1 Toxiciteit

Giftig voor in het water levende organismen, met langdurige gevolgen.

(Acute) aquatische toxiciteit van bestanddelen van het mengsel

Naam van de stof	CAS No	Eindpunt	Waarde	Species	Blootstellingsduur
benzine	86290-81-5	LL50	8,2 mg/l	vis	96 h
benzine	86290-81-5	EL50	4,5 mg/l	ongewervelde aquatische organismen	48 h
benzine	86290-81-5	NOELR	0,5 mg/l	ongewervelde aquatische organismen	48 h
tert-butylmethylether	1634-04-4	LC50	672 mg/l	vis	96 h
tert-butylmethylether	1634-04-4	EC50	472 mg/l	ongewervelde aquatische organismen	48 h
2-ethoxy-2-methylpropane	637-92-3	LC50	574 mg/l	vis	96 h
2-ethoxy-2-methylpropane	637-92-3	EC50	110 mg/l	ongewervelde aquatische organismen	48 h
2-ethoxy-2-methylpropane	637-92-3	ErC50	1.100 mg/l	alg	72 h
2-ethoxy-2-methylpropane	637-92-3	EbC50	32 mg/l	alg	72 h
2-ethoxy-2-methylpropane	637-92-3	NOEC	25 mg/l	ongewervelde aquatische organismen	96 h
2-methoxy-2-methylbutaan	994-05-8	LC50	574 mg/l	vis	96 h

(Acute) aquatische toxiciteit van bestanddelen van het mengsel					
Naam van de stof	**CAS No**	**Eindpunt**	**Waarde**	**Species**	**Blootstellingsduur**
2-methoxy-2-methylbutaan	994-05-8	EC50	100 mg/l	ongewervelde aquatische organismen	48 h
2-methoxy-2-methylbutaan	994-05-8	ErC50	780 mg/l	alg	72 h
2-methoxy-2-methylbutaan	994-05-8	NOEC	77 mg/l	alg	72 h
ethanol	64-17-5	LC50	15.400 mg/l	vis	96 h
ethanol	64-17-5	EC50	12.700 mg/l	vis	96 h
ethanol	64-17-5	ErC50	22.000 mg/l	alg	96 h

(Chronische) aquatische toxiciteit van bestanddelen van het mengsel					
Naam van de stof	**CAS No**	**Eindpunt**	**Waarde**	**Species**	**Blootstellingsduur**
benzine	86290-81-5	EL50	10 mg/l	vis	21 d
benzine	86290-81-5	EC50	15,41 mg/l	micro-organismen	40 h
benzine	86290-81-5	NOELR	2,6 mg/l	vis	21 d
tert-butylmethylether	1634-04-4	NOEC	299 mg/l	vis	31 d
tert-butylmethylether	1634-04-4	LOEC	100 mg/l	ongewervelde aquatische organismen	21 d
tert-butylmethylether	1634-04-4	groei (EbCx) 10%	710 mg/l	micro-organismen	18 h
2-ethoxy-2-methylpropane	637-92-3	EC50	510 mg/l	micro-organismen	16 h
2-ethoxy-2-methylpropane	637-92-3	NOEC	51 mg/l	ongewervelde aquatische organismen	21 d
2-ethoxy-2-methylpropane	637-92-3	LOEC	100 mg/l	ongewervelde aquatische organismen	21 d
2-ethoxy-2-methylpropane	637-92-3	groei (EbCx) 10%	25 mg/l	micro-organismen	16 h
2-methoxy-2-methylbutaan	994-05-8	EC50	510 mg/l	micro-organismen	16 h
2-methoxy-2-methylbutaan	994-05-8	NOEC	51 mg/l	ongewervelde aquatische organismen	21 d
2-methoxy-2-methylbutaan	994-05-8	LOEC	100 mg/l	ongewervelde aquatische organismen	21 d
2-methoxy-2-methylbutaan	994-05-8	groei (EbCx) 10%	25 mg/l	micro-organismen	16 h

(Chronische) aquatische toxiciteit van bestanddelen van het mengsel					
Naam van de stof	**CAS No**	**Eindpunt**	**Waarde**	**Species**	**Blootstel-lingsduur**
ethanol	64-17-5	EC50	22,6 g/l	alg	10 d
ethanol	64-17-5	LC50	1.806 mg/l	ongewervelde aquatische organismen	10 d
ethanol	64-17-5	ErC50	675 mg/l	alg	4 d
ethanol	64-17-5	NOEC	250 mg/l	vis	120 h
ethanol	64-17-5	groeisnelheid (ErCx) 10%	86 mg/l	alg	4 d

12.2 Persistentie en afbreekbaarheid

Afbreekbaarheid van de bestanddelen					
Naam van de stof	**CAS No**	**Proces**	**Afbraaksnel-heid**	**Tijd**	**Methode**
tert-butylmethylether	1634-04-4	zuurstofdepletie	0 %	28 d	
2-ethoxy-2-methylpropane	637-92-3	zuurstofdepletie	6,6 %	7 d	
2-methoxy-2-methylbutaan	994-05-8	zuurstofdepletie	5 %	7 d	
ethanol	64-17-5	zuurstofdepletie	69 %	5 d	

12.3 Bioaccumulatie

Bioaccumulatie van de bestanddelen				
Naam van de stof	**CAS No**	**BCF**	**Log KOW**	**BZV5/CZV**
tert-butylmethylether	1634-04-4	1,5	1,06 (pH-waarde: 7, 20 °C)	
2-ethoxy-2-methylpropane	637-92-3		1,48 (pH-waarde: ~7, 25 °C)	
2-methoxy-2-methylbutaan	994-05-8		1,55 (pH-waarde: ~7, 20 °C)	
ethanol	64-17-5		-0,77	

12.4 Mobiliteit in de bodem

Er zijn geen gegevens beschikbaar.

12.5 Resultaten van PBT- en zPzB-beoordeling

Bevat geen PBT-/zPzB-stof in een concentratie van ≥ 0,1%.

12.6 Hormoonontregelende eigenschappen

Bevat geen hormoonontregelaar (EDC) in een concentratie van ≥ 0,1%.

12.7 Andere schadelijke effecten

Er zijn geen gegevens beschikbaar.

RUBRIEK 13: Instructies voor verwijdering

13.1 Afvalverwerkingsmethoden

Informatie betreffende afvalverwerking

Terugwinning/regeneratie van oplosmiddelen.

Informatie betreffende afvalwaterlozing

Afval niet in de gootsteen werpen. Voorkom lozing in het milieu. Vraag om speciale instructies/veiligheidskaart.

Afvalbehandeling van containers/verpakkingen

Het is gevaarlijk afval; alleen goedgekeurde verpakkingen (bv. overeenkomstig ADR) mogen worden gebruikt. Volledig geleegde verpakkingen kunnen worden gerecycled. Gecontamineerde verpakkingen zijn te behandelen zoals de stof zelf.

Opmerkingen

Let alstublieft op de relevante nationale of regionale bepalingen. Afval wordt gescheiden in de categorieën die afzonderlijk kunnen worden behandeld door de lokale of nationale afvalbeheerdiensten.

RUBRIEK 14: Informatie met betrekking tot het vervoer

14.1 VN-nummer of ID-nummer

ADR/RID/ADN	VN 1203
IMDG-Code	VN 1203
ICAO-TI	VN 1203

14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN

ADR/RID/ADN	BENZINE
IMDG-Code	BENZINE
ICAO-TI	Benzine

14.3 Transportgevarenklasse(n)

ADR/RID/ADN	3
IMDG-Code	3
ICAO-TI	3

14.4 Verpakkingsgroep

ADR/RID/ADN	II
IMDG-Code	II
ICAO-TI	II

14.5 Milieugevaren

gevaar voor het aquatisch milieu

Milieugevaarlijke stoffen (aquatische milieu): benzine

14.6 Bijzondere voorzorgen voor de gebruiker

Aan de bepalingen voor gevaarlijke goederen (ADR) moet ook in het bedrijf worden voldaan.

14.7 Vervoer in bulk overeenkomstig bijlage II bij MARPOL en de IBC-code

Niet van toepassing.

14.8 Verdere informatie voor de VN-reglementen

Vervoer van gevaarlijke goederen over de weg, per spoor of over de binnenwateren (ADR/RID/ADN) - aanvullende informatie

Classificatiecode	F1
Gevaarsetiketten	3, vis en boom

Milieugevaren	ja (gevaar voor het aquatisch milieu)
Bijzondere bepalingen	243, 534, 664
Vrijgestelde hoeveelheden (EQ)	E2
Gelimiteerde hoeveelheden (LQ)	1 L
Vervoerscategorie	2
Tunnelbeperkingscode	D/E
Gevaarsindentificatienummer (GEVI)	33

Opmerkingen

Gevaren (ADN). N2, CMR, F
NSTR 3211: Gasoline/ Benzine/ Bensin.

Internationale Code voor het vervoer van gevaarlijke stoffen over zee (IMDG) - aanvullende informatie

Mariene verontreiniger (Marine Pollutant)	ja (gevaar voor het aquatisch milieu)
Gevaarsetiketten	3, vis en boom

Bijzondere bepalingen	243
Vrijgestelde hoeveelheden (EQ)	E2
Gelimiteerde hoeveelheden (LQ)	1 L
EmS	F-E, S-E
Stuwage categorie	E

Internationale Organisatie voor Burgerluchtvaart (ICAO-IATA/DGR) - aanvullende informatie

Milieugevaren	ja (gevaar voor het aquatisch milieu)
Gevaarsetiketten	3

Bijzondere bepalingen	A100
Vrijgestelde hoeveelheden (EQ)	E2
Gelimiteerde hoeveelheden (LQ)	1 L

RUBRIEK 15: Regelgeving

15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel

Relevante bepalingen van de Europese Unie (EU)

Beperkingen overeenkomstig REACH, bijlage XVII

Naam	Naam volgens inventaris	CAS No	Beperking	Nr.
BENZINE	dit product voldoet aan de criteria voor indeling van Verordening nr. 1272/2008/EG		R3	3
ethanol	ontvlambaar / pyrofoor		R40	40
ethanol	stoffen in inkt voor tatoeage of permanente make-up		R75	75
benzine	kankerverwekkend		R28-30	28
benzine	mutageen in geslachtscellen (mutageen)		R28-30	29
benzine	ontvlambaar / pyrofoor		R40	40
benzine	stoffen in inkt voor tatoeage of permanente make-up		R75	75
tert-butylmethylether	ontvlambaar / pyrofoor		R40	40
tert-butylmethylether	stoffen in inkt voor tatoeage of permanente make-up		R75	75
2-ethoxy-2-methylpropane	ontvlambaar / pyrofoor		R40	40
2-methoxy-2-methylbutaan	ontvlambaar / pyrofoor		R40	40

Legenda

R28-30 1. Mogen niet in de handel worden gebracht of worden gebruikt:
- als stof,
- als bestanddeel van andere stoffen, of
- in mengsels,
voor levering aan het grote publiek, in afzonderlijke concentraties gelijk aan of groter dan:
- hetzij de in deel 3 van bijlage VI bij Verordening (EG) nr. 1272/2008 vastgestelde desbetreffende specifieke concentratiegrens,
- hetzij de in deel 3 van bijlage I bij Verordening (EG) nr. 1272/2008 vastgestelde desbetreffende algemene concentratiegrens.
Onverminderd de toepassing van andere communautaire bepalingen inzake de indeling, verpakking en etikettering van stoffen en mengsels zorgen de leveranciers er vóór het in de handel brengen voor dat op de verpakking van dergelijke stoffen en mengsels zichtbaar, leesbaar en onuitwisbaar het volgende wordt vermeld:
„Uitsluitend voor gebruik door professionele gebruiker".
2. Punt 1 is echter niet van toepassing op:
a) geneesmiddelen voor menselijk of diergeneeskundig gebruik in de zin van Richtlijn 2001/82/EG en Richtlijn 2001/83/EG;
b) cosmetische producten in de zin van Richtlijn 76/768/EEG;
c) de volgende brandstoffen en olieproducten:
- brandstoffen als bedoeld in Richtlijn 98/70/EG,
- derivaten van minerale oliën, bestemd voor gebruik als brandstof in mobiele of vaste verbrandingsinstallaties,
- brandstoffen die in een gesloten systeem worden verkocht (bijvoorbeeld flessen vloeibaar gas);
d) kunstschilderverven die onder Verordening (EG) nr. 1272/2008 vallen;
e) de in aanhangsel 11, kolom 1, vermelde stoffen voor de in kolom 2 van dat aanhangsel vermelde toepassingen. Indien in kolom 2 van aanhangsel 11 een datum wordt vermeld, geldt de afwijking tot en met die datum;
f) hulpmiddelen die onder Verordening (EU) 2017/745 vallen.

Legenda

R3 1. Mogen niet worden gebruikt:
- in siervoorwerpen bestemd om licht- of kleureffecten te verkrijgen door verschillende fasen, bijvoorbeeld in sfeerlampen en asbakken,
- in scherts- en fopartikelen,
- in spelen voor een of meer personen of in alle voorwerpen die bestemd zijn om als zodanig te worden gebruikt, zelfs als deze fungeren als siervoorwerp.

2. Voorwerpen die niet met punt 1 in overeenstemming zijn, mogen niet in de handel worden gebracht.

3. Mogen niet in de handel worden gebracht als zij een kleurstof bevatten, tenzij dat om fiscale redenen vereist is, of een geurstof of beide, en als zij:
— als brandstof kunnen worden gebruikt in decoratieve olielampen die bestemd zijn voor het grote publiek, en
— gevaarlijk zijn bij inademing en met H304 worden gekenmerkt.

4. Decoratieve olielampen die voor het grote publiek bestemd zijn mogen slechts in de handel worden gebracht indien zij voldoen aan de door het Europees Comité voor Normalisatie (CEN) vastgestelde Europese norm inzake decoratieve olielampen (EN 14059).

5. Onverminderd de toepassing van andere bepalingen van de Unie inzake de indeling, etikettering en verpakking van stoffen en mengsels moeten de leveranciers ervoor zorgen dat de producten, voordat zij in de handel worden gebracht, aan de volgende voorschriften voldoen:
a) lampoliën die met H304 worden gekenmerkt en voor het grote publiek bestemd zijn, moeten zichtbaar, leesbaar en onuitwisbaar de volgende vermeldingen dragen: “Lampen die met deze vloeistof gevuld zijn buiten het bereik van kinderen houden”; en, uiterlijk op 1 december 2010, “Een klein slokje lampolie — of nog maar zuigen aan de pit van lampen — kan levensbedreigende longschade tot gevolg hebben”;
b) aanmaakvloeistoffen voor barbecues die met H304 worden gekenmerkt en voor het grote publiek bestemd zijn, moeten uiterlijk op 1 december 2010 leesbaar en onuitwisbaar de volgende vermelding dragen: “Een klein slokje aanmaakvloeistof kan levensbedreigende longschade tot gevolg hebben”;
c) lampoliën en aanmaakvloeistoffen voor barbecues die met H304 worden gekenmerkt en voor het grote publiek bestemd zijn, worden uiterlijk op 1 december 2010 verpakt in zwarte ondoorzichtige recipiënten van maximaal 1 liter.

R40 1. Mogen niet als stof of in mengsels worden gebruikt in aerosolen die in de handel worden gebracht voor levering aan het grote publiek voor amusements- of decoratiedoeleinden, zoals:
- metaalglitter (hoofdzakelijk bedoeld als decoratieartikel);
- kunstsneeuw en -rijp (decoratieartikel);
- „scheetkussens” (fopartikel);
- „silly string” (schertsartikel);
- nepdrollen (fopartikel);
- feesttoeters (amusementsartikel);
- vlokken en schuim (decoratieartikel);
- imitatiespinnenwebben (fopartikel);
- stinkbommen (schertsartikel).

2. Onverminderd de toepassing van andere communautaire bepalingen inzake de indeling, verpakking en etikettering van stoffen zorgen de leveranciers er vóór het in de handel brengen voor dat op de verpakking van de bovenbedoelde aerosolen zichtbaar, leesbaar en onuitwisbaar het volgende wordt vermeld:
„Uitsluitend bestemd voor professionele gebruikers”.

3. De punten 1 en 2 gelden echter niet voor aerosolen als bedoeld in artikel 8, lid 1 bis, van Richtlijn 75/324/EEG van de Raad (2).

4. De in de punten 1 en 2 bedoelde aerosolen mogen niet in de handel worden gebracht, tenzij zij voldoen aan de in die punten genoemde voorschriften.

Legenda

R75 1. Mogen niet in de handel worden gebracht in mengsels voor tatoeagedoeleinden, en mengsels die dergelijke stoffen bevatten, mogen niet voor tatoeagedoeleinden worden gebruikt na 4 januari 2022 indien de stof(fen) in kwestie aanwezig is(zijn) of indien de volgende omstandigheden zich voordoen:
a) in het geval van een stof die in deel 3 van bijlage VI bij Verordening (EG) nr. 1272/2008 is ingedeeld als kankerverwekkende stof van categorie 1A, 1B of 2, of als voor geslachtscellen mutagene stof van categorie 1A, 1B of 2, de concentratie van die stof in het mengsel gelijk is aan of groter is dan 0,00005 gewichtspercent;
b) in het geval van een stof die in deel 3 van bijlage VI bij Verordening (EG) nr. 1272/2008 is ingedeeld als giftig voor de voortplanting, categorie 1A, 1B of 2, de concentratie van die stof in het mengsel gelijk is aan of groter is dan 0,001 gewichtspercent;
c) in het geval van een stof die in deel 3 van bijlage VI bij Verordening (EG) nr. 1272/2008 is ingedeeld als huidallergeen van categorie 1, 1A of 1B, de concentratie van die stof in het mengsel gelijk is aan of groter is dan 0,001 % gewichtspercent;
d) in het geval van een stof die in deel 3 van bijlage VI bij Verordening (EG) nr. 1272/2008 is ingedeeld als bijtend voor de huid, categorie 1, 1A, 1B of 1C, of irriterend voor de huid, categorie 2, of voor ernstig oogletsel van categorie 1 of als irriterend voor de ogen, categorie 2, de concentratie van die stof in het mengsel gelijk is aan of groter is dan:
i) 0,1 gewichtspercent, indien de stof uitsluitend als pH-regelaar wordt gebruikt;
ii) 0,01 gewichtspercent, in alle andere gevallen;
e) in het geval van een stof die in bijlage II bij Verordening (EG) nr. 1223/2009 (*1) is opgenomen, een concentratie in het mengsel gelijk aan of groter dan 0,00005 gewichtspercent;
f) in het geval van een stof waarvoor in kolom g (Producttype, lichaamsdelen) van de tabel in bijlage IV bij Verordening (EG) nr. 1223/2009 een of meer van de volgende soorten voorwaarden is aangegeven, de concentratie van de stof in het mengsel gelijk aan of groter dan 0,00005 gewichtspercent:
i) “Producten die worden af-, uit- of weggespoeld”;
ii) “Niet gebruiken in producten die op de slijmvliezen worden aangebracht”;
iii) “Niet gebruiken in oogproducten”;
g) in het geval van een stof waarvoor in kolom h (Maximale concentratie in het gebruiksklare product) of kolom i (andere) van de tabel in bijlage IV bij Verordening (EG) nr. 1223/2009 een voorwaarde is aangegeven, de concentratie van de stof in het mengsel niet voldoet aan de in die kolom vermelde voorwaarde, of de stof op een andere wijze daar niet aan voldoet;
h) in het geval van een in aanhangsel 13 bij deze bijlage opgenomen stof, de concentratie van de stof in het mengsel gelijk aan of groter dan de in dat aanhangsel voor die stof vastgestelde concentratiegrens.
2. In het kader van deze vermelding wordt onder gebruikmaking van een mengsel “voor tatoeagedoeleinden” verstaan: het inspuiten of inbrengen van het mengsel in de huid, de slijmvliezen of de oogbol van een persoon door middel van een proces of procedure (waaronder procedures die gewoonlijk worden aangeduid als “permanente make-up”, cosmetische tatoeage, “microblading” en “micropigmentatie”), met als doel een permanent(e) merk of tekening op het lichaam van die persoon achter te laten.
3. Indien een stof die niet in aanhangsel 13 is vermeld, onder meer dan een van de punten a) tot en met g) van lid 1 valt, geldt voor die stof de strengste van de in die punten vastgestelde concentratiegrenzen. Indien een in aanhangsel 13 vermelde stof ook onder een of meer van de punten a) tot en met g) van punt 1 valt, is de in punt 1, onder h), vastgestelde concentratiegrens op die stof van toepassing.
4. In afwijking hiervan is lid 1 niet van toepassing op de volgende stoffen tot 4 januari 2023:
a) Pigment Blue 15:3 (CI 74160, EG-nr. 205-685-1, CAS-nr. 147-14-8);
b) Pigment Green 7 (CI 74260, EG-nr. 215-524-7, CAS-nr. 1328-53-6).
5. Indien deel 3 van bijlage VI bij Verordening (EG) nr. 1272/2008 na 4 januari 2021 wordt gewijzigd en daarbij een stof zodanig wordt ingedeeld of opnieuw wordt ingedeeld dat die stof onder a), b), c) of d) van punt 1 van deze vermelding valt, of onder een ander punt valt dan voorheen, en indien de datum van toepassing van die nieuwe of herziene indeling na de in punt 1 bedoelde datum of, naargelang van het geval, punt 4 van deze vermelding is, wordt die wijziging voor de toepassing van deze vermelding op die stof behandeld als van toepassing op de datum van toepassing van die nieuwe of herziene indeling.
6. Indien de vermelding van een stof in bijlage II of bijlage IV bij Verordening (EG) nr. 1223/2009 na 4 januari 2021 zodanig wordt gewijzigd dat de stof onder e), f) of g) van punt 1 van deze vermelding valt, of onder een ander punt dan voorheen, en indien de wijziging van kracht wordt na de in punt 1 of, in voorkomend geval, punt 4, bedoelde datum van deze vermelding, wordt die wijziging voor wat betreft de toepassing van deze vermelding op die stof behandeld als van toepassing wordend met ingang van de datum die valt 18 maanden na de inwerkingtreding van de handeling waarbij die wijziging is vastgesteld.
7. Leveranciers die een mengsel na 4 januari 2022 voor tatoeagedoeleinden op de markt brengen, zorgen ervoor dat de volgende informatie op het mengsel is vermeld:
a) de tekst “Mengsel voor gebruik in tatoeages of permanente make-up”;
b) een uniek referentienummer voor identificatie van de partij;
c) de lijst van ingrediënten overeenkomstig de nomenclatuur die is vastgesteld in de woordenlijst van gemeen-

Legenda

schappelijke benamingen van ingrediënten overeenkomstig artikel 33 van Verordening (EG) nr. 1223/2009, of, bij ontbreken van een gemeenschappelijke benaming, de IUPAC-benaming. Bij ontbreken van een gemeenschappelijke benaming van ingrediënten of IUPAC-benaming, het CAS- en EG-nummer. De ingrediënten worden vermeld in afnemende volgorde van gewicht of volume van de ingrediënten op het moment van de samenstelling. Onder “ingrediënt” wordt verstaan elke stof die tijdens het samenstellen van het mengsel voor tatoeagedoeleinden wordt toegevoegd en daarin aanwezig is. Onzuiverheden worden niet als ingrediënten beschouwd. Indien de naam van een stof die als ingrediënt in de zin van deze vermelding wordt gebruikt, reeds overeenkomstig Verordening (EG) nr. 1272/2008 op het etiket moet worden vermeld, hoeft die ingrediënt niet overeenkomstig deze verordening te worden vermeld;
d) de aanvullende vermelding “pH-regelaar” voor stoffen die vallen onder lid 1, onder d), ii);
e) de vermelding “Bevat nikkel. Kan allergische reacties veroorzaken.” als het mengsel nikkel bevat onder de in aanhangsel 13 vermelde concentratiegrens;
f) de vermelding “Bevat zeswaardig chroom (VI). Kan allergische reacties veroorzaken.” als het mengsel chroom (VI) bevat onder de in aanhangsel 13 vermelde concentratiegrens;
g) veiligheidsvoorschriften voor het gebruik, voor zover deze niet reeds overeenkomstig Verordening (EG) nr. 1272/2008 op het etiket moeten worden vermeld. De informatie moet duidelijk zichtbaar, gemakkelijk leesbaar en onuitwisbaar zijn aangebracht. De informatie wordt vermeld in de officiële taal of talen van de lidstaat of -staten waar het mengsel in de handel wordt gebracht, tenzij door de betrokken lidstaat of -staten anders is bepaald. Indien er op de verpakking niet genoeg ruimte is voor de in de eerste alinea bedoelde informatie, wordt die informatie, behalve voor wat punt a) betreft, opgenomen in de gebruiksaanwijzing. De persoon die het mengsel toedient, verstrekt de gegevens die overeenkomstig dit punt op de verpakking of in de gebruiksaanwijzing zijn vermeld aan de persoon die de procedure ondergaat voordat het mengsel voor tatoeagedoeleinden wordt gebruikt.
8. Mengsels zonder de tekst “Mengsel voor gebruik in tatoeages of permanente make-up” mogen niet voor tatoeagedoeleinden worden gebruikt.
9. Deze vermelding is niet van toepassing op stoffen die gassen zijn bij een temperatuur van 20 °C en druk van 101,3 kPa, of die een dampspanning genereren van meer dan 300 kPa bij een temperatuur van 50 °C, met uitzondering van formaldehyde (CAS-nr. 50-00-0, EG-nr. 200-001-8).
10. Deze vermelding is niet van toepassing op het in de handel brengen of het gebruiken van mengsels voor tatoeagedoeleinden die uitsluitend als medisch hulpmiddel of toebehoren van een medisch hulpmiddel in de zin van Verordening (EU) 2017/745 in de handel wordt gebracht of gebruikt. Wanneer een mengsel niet uitsluitend als medisch hulpmiddel of toebehoren van een medisch hulpmiddel in de handel is gebracht of kan worden gebruikt, zijn de voorschriften van Verordening (EU) 2017/745 en de voorschriften van deze verordening cumulatief van toepassing.

Lijst van autorisatieplichtige stoffen (REACH, bijlage XIV) / SVHC - kandidaat lijst

Geen van de bestanddelen is vermeld.

Seveso Richtlijn

2012/18/EU (Seveso III)				
Nr.	**Gevaarlijke stof/gevarencategorieën**	**Drempelwaarden (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen en hogedrempelinrichtingen**		**Noten**
34a	ardolieproduct (benzines en nafta's)	2.500	25.000	

Verordening betreffende de instelling van een Europees register inzake de uitstoot en overbrenging van verontreinigende stoffen (PRTR)

Geen van de bestanddelen is vermeld.

Kaderrichtlijn water (KRW)

Lijst van verontreinigende stoffen (KRW)				
Naam van de stof	**Naam volgens inventaris**	**CAS No**	**Opgenomen in**	**Opmerkingen**
ethanol	Stoffen en preparaten, of de afbraakproducten daarvan, waarvan is aangetoond dat zij carcinogene of mutagene eigenschappen hebben, of eigenschappen die in of via het aquatische milieu gevolgen kunnen hebben voor steroïdogene functies, schildklierfuncties, de voortplanting of andere hormonale functies		a)	
benzine	Stoffen en preparaten, of de afbraakproducten daarvan, waarvan is aangetoond dat zij carcinogene of mutagene eigenschappen hebben, of eigenschappen die in of via het aquatische milieu gevolgen kunnen hebben voor steroïdogene functies, schildklierfuncties, de voortplanting of andere hormonale functies		a)	
tert-butylmethylether	Stoffen en preparaten, of de afbraakproducten daarvan, waarvan is aangetoond dat zij carcinogene of mutagene eigenschappen hebben, of eigenschappen die in of via het aquatische milieu gevolgen kunnen hebben voor steroïdogene functies, schildklierfuncties, de voortplanting of andere hormonale functies		a)	
2-methoxy-2-methylbutaan	Stoffen en preparaten, of de afbraakproducten daarvan, waarvan is aangetoond dat zij carcinogene of mutagene eigenschappen hebben, of eigenschappen die in of via het aquatische milieu gevolgen kunnen hebben voor steroïdogene functies, schildklierfuncties, de voortplanting of andere hormonale functies		a)	

Legenda

a) Indicatieve lijst van de belangrijkste verontreinigende stoffen

Verordening (EU) 2019/1148 van het Europees Parlement en de Raad van 20 juni 2019 over het op de markt brengen en het gebruik van precursoren voor explosieven, tot wijziging van Verordening (EG) nr. 1907/2006 en tot intrekking van Verordening (EU) nr. 98/2013

Geen van de bestanddelen is vermeld.

Verordening betreffende persistente organische verontreinigende stoffen (POP)

Geen van de bestanddelen is vermeld.

Nationale voorschriften (Nederland)

SZW-lijst CMR-effecten

Lijst van kankerverwekkende, mutagene, en voor de voortplanting giftige stoffen (SZW-lijst)				
Naam volgens inventaris	**CAS No**	**Kankerver-wekkendheid**	**Mutageniteit**	**Giftigheid voor de voort-planting**
ethanol (ethylalcohol)	64-17-5	carc		repr F1A D1A B
(complex) petroleum and coal derivatives (hydrocarbons)		carc		
petroleum gases and residues (hydrocar-bons)			muta	

Legenda

B	Borstvoeding categorie
carc	Opgenomen in "B Lijst van kankerverwekkende stoffen"
D1A	Ontwikkeling categorie 1A
F1A	Vruchtbaarheid categorie 1A
muta	Opgenomen in "SZW-lijst van mutagene stoffen"
repr	Opgenomen in "NIET-limitatieve lijst van voor de voortplanting giftige stoffen"

Lijst van Zeer Zorgwekkende Stoffen, Rijksinstituut voor Volksgezondheid en Milieu (RIVM)

Lijst van Zeer Zorgwekkende Stoffen (ZZS-lijst)					
Naam volgens inventaris	**CAS No**	**Stofklasse voor luchte-missies**	**Opmerkingen**	**Grensmassa-stroom**	**Emissiegrens-waard**
Nafta met laag kookpunt - niet gespecifieerd	86290-81-5		rem-114 rem-119		

Legenda

rem-114	De meeste aardolie- en steenkool derivaten zijn niet als ZZS opgenomen in bijlage 12a van de Activiteitenregeling milieubeheer. Alleen als deze producten minder dan 0,1% aan ZZS componenten bevatten, kan stofklasse gO.2 worden aangehouden. Als er meer dan 0,1% ZZS componenten aanwezig zijn, moet het product als ZZS worden beschouwd. Bij de aanwezigheid van vluchtige ZZS-componenten adviseren we de stofklasse MVP 2 te hanteren; bij de aanwezigheid van niet-vluchtige ZZS-componenten adviseren we de stofklasse MVP 1 te hanteren. Voor meer gedetailleerde criteria voor stoffen en mengsels met een ZZS-component zie: rvs.rivm.nl/stoffenlijsten/Zeer-Zorgwekkende-Stoffen/ZZS-in-mengels. Advies voor vergunningverlening voor mengsels en stoffen met ZZS-bestanddelen wordt gegeven op de website van het IPLO: https://iplo.nl/thema/zeer-zorgwekkende-stoffen-zzs/mengsels-zzs/
rem-119	De stof hoeft volgens CLP niet als kankerverwekkend of mutageen te worden ingedeeld als kan worden aangetoond dat zij minder dan 0,1 % (g/g) benzeen (Einecs-nr. 200-753-7) bevat. Als de stof niet als kankerverwekkend wordt ingedeeld, gelden hiervoor minimaal de voorzorgsmaatregelen (P102-)P260-P262- P301 + P310-P331. De stof kan dan echter toch een ZZS zijn. Andere componenten erin kunnen bijvoorbeeld schadelijk zijn voor de voortplanting of PBT (Persistent, Bioaccumulerend én Toxisch) zijn. Om te concluderen dat de stof geen ZZS is moet duidelijk zijn dat het geen van deze componenten bevat.

15.2 Chemischeveiligheidsbeoordeling

Een chemische veiligheidsbeoordeling werd uitgevoerd voor de stoffen in dit mengsel.

RUBRIEK 16: Overige informatie

Vermelding van wijzigingen (herzien veiligheidsinformatieblad)

Rubriek	Eerdere vermelding (tekst/waarde)	Actuele vermelding (tekst/waarde)
1.3	Details betreffende de verstrekker van het veiligheidsinformatieblad: VARO Energy Netherlands B.V. Waalhaven Z.Z. 11 3089 JH Rotterdam Nederland Telefoon: +31 (0)881007000	Details betreffende de verstrekker van het veiligheidsinformatieblad: VARO Energy Netherlands B.V. World Port Center | Wilhelminakade 919 3072 AP Rotterdam Nederland Telefoon: +31 (0)881007000 HSE@varoenergy.com
1.4		Telefoonnummer voor noodgevallen: verandering in de lijst (tabel)
2.1		Indeling overeenkomstig Verordening (EG) Nr. 1272/2008 (CLP): verandering in de lijst (tabel)
2.1	De belangrijkste nadelige fysisch-chemische, gezondheids- en milieueffecten: Product is brandbaar en kan tot ontsteking gebracht worden door potentiele ontstekingsbronnen. Lekkage en bluswater kunnen tot verontreiniging van waterwegen leiden.	De belangrijkste nadelige fysisch-chemische, gezondheids- en milieueffecten: Product is brandbaar en kan tot ontsteking gebracht worden door potentiële ontstekingsbronnen. Lekkage en bluswater kunnen tot verontreiniging van waterwegen leiden.
2.2		- gevarenaanduidingen: verandering in de lijst (tabel)
2.2	- gevaarlijke bestanddelen ter etikettering: benzine; 2-ethoxy-2-methylpropane; 2-methoxy-2-methylbutaan	- gevaarlijke bestanddelen ter etikettering: Bevat: benzine; 2-ethoxy-2-methylpropane; 2-methoxy-2-methylbutaan.
2.3	Andere gevaren: Niet relevant.	Andere gevaren: Dampen zijn zwaarder dan lucht, verspreiden zich via de grond en vormen samen met lucht een explosief mengsel.
2.3		Hormoonontregelende eigenschappen: Bevat geen hormoonontregelaar (ED) in een concentratie van ≥ 0,1%.
5.1	Geschikte blusmiddelen: Waternevel; Droog bluspoeder; Kooldioxide (CO2); Alcohol bestendig schuim	Geschikte blusmiddelen: Waternevel; Droog bluspoeder; Koolstofdioxide (CO2); Alcohol bestendig schuim
5.2	Gevaarlijke verbrandingsproducten: Tijdens brand kunnen gevaarlijke dampen/rook ontstaan. Koolstofmonoxide (CO). Kooldioxide (CO2).	Gevaarlijke verbrandingsproducten: Tijdens brand kunnen gevaarlijke dampen/rook ontstaan. Stikstofoxiden (NOx). Koolstofmonoxide (CO). Koolstofdioxide (CO2).

Rubriek	Eerdere vermelding (tekst/waarde)	Actuele vermelding (tekst/waarde)
6.1	Voor andere personen dan de hulpdiensten: Personen in veiligheid brengen. De getroffen zone ventileren.	Voor andere personen dan de hulpdiensten: Personen in veiligheid brengen. De getroffen zone ventileren. In geval van brand: het lek dichten als dat veilig gedaan kan worden. Alle ontstekingsbronnen wegnemen als dat veilig gedaan kan worden. Door explosiegevaar, voorkom het vrijkomen van dampen in kelders, schachten en putten.
6.1	Voor de hulpdiensten: Ademhalingsapparatuur dragen bij blootstelling aan dampen/stofdeeltjes/aërosols/gassen. Persoonlijke beschermingsmiddelen: zie rubriek 8.	Voor de hulpdiensten: Ademhalingsapparatuur dragen bij blootstelling aan dampen/stofdeeltjes/aerosols/gassen. Persoonlijke beschermingsmiddelen: zie rubriek 8.
6.2	Milieuvoorzorgsmaatregelen: Vermijden dat het product in afvoerkanalen, oppervlaktewater of grondwater terechtkomt. Verontreinigd waswater terughouden en verwijderen. Laat de verantwoordelijke autoriteit waarschuwen als de stof in het water of in het riool terecht is gekomen. Gecontamineerd bluswater apart verzamelen.	Milieuvoorzorgsmaatregelen: Vermijden dat het product in afvoerkanalen, oppervlaktewater of grondwater terechtkomt. Laat de verantwoordelijke autoriteit waarschuwen als de stof in het water of in het riool terecht is gekomen. Gecontamineerd bluswater apart verzamelen.
7.2	- ontvlammingsgevaar: Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken. Tegen zonlicht beschermen.	- ontvlammingsgevaar: Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken. Tegen zonlicht beschermen. Opslag - en opvangreservoir aarden.
8.1		Opmerkingen: Benzeen-limiet EU (2022/431/EU): Grenswaarde 1 ppm (3,25 mg/m3) tot 5 april 2024. Grenswaarde 0,5 ppm (1,65 mg/m3) vanaf 5 april 2024 tot 5 april 2026.
8.2	Bescherming van de ogen/het gezicht: eye protection must be worn Veiligheidsbril met zijbescherming dragen (EN 166).	Bescherming van de ogen/het gezicht: eye protection must be worn Veiligheidsbril met zijbescherming dragen (EN 166).
8.2	Bescherming van de handen: veiligheidshandschoenen verplicht Draag geschikte handschoenen. Geschikt zijn volgens EN 374 beproefde handschoenen tegen chemicaliën. Er wordt aangeraden om in geval van speciale applicaties de chemische bestendigheid van de boven genoemde veiligheidshandschoenen samen met de leverancier van de handschoenen na te gaan.	Bescherming van de handen: veiligheidshandschoenen verplicht Draag geschikte handschoenen. Geschikt zijn volgens EN 374 beproefde handschoenen tegen chemicaliën. Er wordt aangeraden om in geval van speciale applicaties de chemische bestendigheid van de boven genoemde veiligheidshandschoenen samen met de leverancier van de handschoenen na te gaan.
9.1	Verdampingssnelheid: niet bepaald	
9.1	Dampspanning: <240 hPa bij 37,8 °C	Dampspanning: <240 kPa bij 37,8 °C
9.1		Dichtheid en/of relatieve dichtheid
11.1	Acute toxiciteit van de bestanddelen in het mengsel	

Rubriek	Eerdere vermelding (tekst/waarde)	Actuele vermelding (tekst/waarde)
11.1	Voortplantingstoxiciteit: Wordt ervan verdacht het ongeboren kind te schaden. Wordt ervan verdacht de vruchtbaarheid te schaden.	Voortplantingstoxiciteit: Wordt ervan verdacht het ongeboren kind te schaden.
11.2		Informatie over andere gevaren
11.2		Hormoonontregelende eigenschappen: Bevat geen hormoonontregelaar (ED) in een concentratie van ≥ 0,1%.
11.2		Overige informatie: Er is geen verdere informatie.
12.1		(Acute) aquatische toxiciteit van bestanddelen van het mengsel: verandering in de lijst (tabel)
12.1		(Chronische) aquatische toxiciteit van bestanddelen van het mengsel: verandering in de lijst (tabel)
12.3		Bioaccumulatie van de bestanddelen: verandering in de lijst (tabel)
12.5	Resultaten van PBT- en zPzB-beoordeling: Dit mengsel bevat geen stoffen die na beoordeling als een PBT- of zPzB-stof worden beschouwd.	Resultaten van PBT- en zPzB-beoordeling: Bevat geen PBT-/zPzB-stof in een concentratie van ≥ 0,1%.
12.6	Hormoonontregelend vermogen: Dit mengsel bevat stof(fen) met een hormoonontregelend vermogen.	Hormoonontregelende eigenschappen: Bevat geen hormoonontregelaar (EDC) in een concentratie van ≥ 0,1%.
12.6		Hormoonontregelende chemische stoffen (EDC): verandering in de lijst (tabel)
14.7	Vervoer in bulk overeenkomstig bijlage II bij MARPOL en de IBC-code: Geen gegevens beschikbaar.	Vervoer in bulk overeenkomstig bijlage II bij MARPOL en de IBC-code: Niet van toepassing.
15.1		Lijst van verontreinigende stoffen (KRW): verandering in de lijst (tabel)
15.1		Lijst van Zeer Zorgwekkende Stoffen (ZZS-lijst): verandering in de lijst (tabel)
16		Lijst van relevante zinnen (code en voluit geschreven tekst zoals in rubriek 2 en 3 vermeld): verandering in de lijst (tabel)

Afkortingen en acroniemen

Afk.	Beschrijvingen van de gebruikte afkortingen
2006/15/EG	Richtlijn van de Commissie tot vaststelling van een tweede lijst van indicatieve grenswaarden voor beroepsmatige blootstelling ter uitvoering van Richtlijn 98/24/EG van de Raad en tot wijziging van de Richtlijnen 91/322/EEG en 2000/39/EG

Afk.	Beschrijvingen van de gebruikte afkortingen
2009/161/EU	Richtlijn 2009/161/EU van de Commissie tot vaststelling van een derde lijst van indicatieve grenswaarden voor beroepsmatige blootstelling ter uitvoering van Richtlijn 98/24/EG van de Raad en tot wijziging van Richtlijn 2000/39/EG van de Commissie
2022/431/EU	Richtlijn (EU) 2022/431 van het Europees Parlement en de Raad van 9 maart 2022 tot wijziging van Richtlijn 2004/37/EG betreffende de bescherming van de werknemers tegen de risico's van blootstelling aan carcinogene of mutagene agentia op het werk
Acute Tox.	Acute toxiciteit
ADN	Accord européen relatif au transport internationale des marchandises Dangereuses par voies de navigation Intérieures (Europese Overeenkomst betreffende het internationale vervoer van gevaarlijke goederen over de binnenwateren)
ADR	Accord relatif au transport internationale des marchandises Dangereuses par route (Overeenkomst betreffende het internationale vervoer van gevaarlijke goederen over de weg)
ADR/RID/ADN	Overeenkomsten betreffende het internationaal vervoer van gevaarlijke goederen over de weg/per spoor/over de binnenwateren (ADR/RID/ADN)
Aquatic Chronic	Chronisch gevaar voor het aquatisch milieu
Asp. Tox.	Aspiratiegevaar
ATE	Acute toxiciteitsschatting
BCF	Bioconcentratiefactor
BZV	Biologisch zuurstofvraag
Carc.	Kankerverwekkendheid
CAS	Chemical Abstracts Service (database voor chemische stoffen en hun uniekenummer, het CAS registratienummer)
catalogus nr.	Het catalogusnummer is de in deel 3 van bijlage VI bij Verordening (EG) nr. 1272/2008 gebruikte identificatiecode
CLP	Verordening (EG) nr. 1272/2008 betreffende de indeling, etikettering en verpakking (Classification, Labelling and Packaging) van stoffen en mengsels
CMR	Carcinogeen, Mutageen of Reproductietoxisch
CW	Ceilingwaarde (plafondwaarde)
CZV	Chemische ZuurstofVraag
DGR	Dangerous Goods Regulations, voorschriften voor het vervoer van gevaarlijke goederen, zie IATA/DGR
DMEL	Derived Minimal Effect Level (afgeleide dosis met minimaal effect)
DNEL	Derived No-Effect Level (afgeleide dosis zonder effect)
EbC50	≡ EC50: in deze methode de concentratie van een teststof waarbij ten opzichte van de controle een 50 % vermindering van de groei (EbC50) of de groeisnelheid (ErC50) optreedt
EC50	Effectieve concentratie 50 %. De EC50 komt overeen met de concentratie van een geteste stof die 50 % verandering in de respons veroorzaakt (bvb. op de groei) gedurende een gespecificeerde tijdsinterval

Afk.	Beschrijvingen van de gebruikte afkortingen
EC No	Het EG-register (EINECS, ELINCS en het NLP-register) is de bron voor het zevencijferige EC-getal als kengetal voor stoffen (Europese Unie)
ED	Hormoonontregelaar
EINECS	European Inventory of Existing Commercial Chemical Substances (europese inventaris van bestaande chemische handelsstoffen)
EL50	Effective Belading 50 %: de EL50 komt overeen met de belading die nodig is om een respons verkrijgen in 50 % van de testorganismen
ELINCS	European List of Notified Chemical Substances (Europese lijst van bekendgemaakte chemische stoffen)
EmS	Emergency Schedule (rampenplan)
ErC50	≡ EC50: in deze methode de concentratie van een teststof waarbij ten opzichte van de controle een 50 % vermindering van de groei (EbC50) of de groeisnelheid (ErC50) optreedt
Eye Dam.	Veroorzaakt ernstig oogletsel
Eye Irrit.	Irriterend voor ogen
Flam. Liq.	Ontvlambare vloeistof
GHS	"Wereldwijd geharmoniseerd systeem voor de indeling en etikettering van chemische stoffen", ontwikkeld door de Verenigde Naties
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) voor de luchtvaart (IATA)
ICAO	International Civil Aviation Organization (Internationale Organisatie voor Burgerluchtvaart)
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air (Technische voorschriften voor het veilig vervoeren van gevaarlijke goederen via de lucht)
IMDG	Internationale Code voor het vervoer van gevaarlijke stoffen over zee (IMDG-code)
IMDG-Code	International Maritime Dangerous Goods Code
IOELV	Indicatieve grenswaard voor beroepsmatige blootstelling
LC50	Letale concentratie 50 %: is de concentratie waarde in lucht van het materiaal waarbij 50 % van de testobjecten sterft gedurende een bepaalde tijdsinterval
LD50	Letale dosis 50 %: de LD50 komt overeen met de dosis van een geteste stof waarbij 50 % van de testobjecten sterft gedurende een gespecificeerde tijdsinterval
LEL	Onderste explosiegrens (LEL)
LL50	Letale Belading 50 %: de LL50 komt overeen met de belading die 50 % sterfte veroorzaakt
LOEC	Laagste concentratie waarbij een effect werd vastgesteld
log KOW	n-Octanol/water
MARPOL	Internationaal Verdrag ter voorkoming van verontreiniging door schepen (afk. van mariene verontreiniger)
Muta.	Mutageniteit in geslachtscellen
NLP	No-Longer Polymer (niet langer polymeer)

Afk.	Beschrijvingen van de gebruikte afkortingen
NOEC	Concentratie zonder waargenomen effecten
NOELR	Belading waarbij geen effect werd vastgesteld
PBT	Persistent, Bioaccumulerend en Toxisch
PNEC	Voorspelde concentratie zonder effect
ppm	Deeltjes per miljoen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (registratie en beoordeling van, en autorisatie en beperkingen ten aanzien van chemische stoffen)
Repr.	Voortplantingstoxiciteit
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Reglement betreffende het internationaal vervoer van gevaarlijke goederen over het spoor)
SC-SZW	Staatscourant: Regeling van de Minister van Sociale Zaken en Werkgelegenheid tot wijziging van de Arbeidsomstandighedenregeling
Skin Corr.	Huidcorrosief
Skin Irrit.	Huidirriterend
STOT SE	Specifieke doelorgaantoxiciteit bij eenmalige blootstelling
SVHC	Zeer zorgwekkende stof
TGG 15 min	Kortetijdswaarde
TGG 8 uur	Tijd gewogen gemiddelde
UEL	Bovenste explosiegrens (UEL)
zPzB	Zeer persistent en zeer bioaccumulerend

Belangrijke literatuurreferenties en gegevensbronnen

Verordening (EG) nr. 1272/2008 betreffende de indeling, etikettering en verpakking (Classification, Labelling and Packaging) van stoffen en mengsels. Verordening (EG) Nr. 1907/2006 (REACH), gewijzigd door 2020/878/EU.

Vervoer van gevaarlijke goederen over de weg, per spoor of over de binnenwateren (ADR/RID/ADN). Internationale Code voor het vervoer van gevaarlijke stoffen over zee (IMDG). Dangerous Goods Regulations (DGR) voor de luchtvaart (IATA).

Indelingsprocedure

Fysische en chemische eigenschappen: De indeling berust op basis van de resultaten van de geteste mengsels. Gezondheidsgevaren, Milieugevaren: De methode voor indeling van mengsels op basis van de bestanddelen van het mengsel (somformule).

Lijst van relevante zinnen (code en voluit geschreven tekst zoals in rubriek 2 en 3 vermeld)

Code	Tekst
H224	Zeer licht ontvlambare vloeistof en damp.
H225	Licht ontvlambare vloeistof en damp.
H302	Schadelijk bij inslikken.
H304	Kan dodelijk zijn als de stof bij inslikken in de luchtwegen terechtkomt.
H315	Veroorzaakt huidirritatie.
H319	Veroorzaakt ernstige oogirritatie.
H336	Kan slaperigheid of duizeligheid veroorzaken.
H340	Kan genetische schade veroorzaken.
H350	Kan kanker veroorzaken.
H361d	Wordt ervan verdacht het ongeboren kind te schaden.
H411	Giftig voor in het water levende organismen, met langdurige gevolgen.

Disclaimer

Deze informatie is gebaseerd op de huidige stand van onze kennis. Dit ViB is samengesteld en uitsluitend bedoeld voor dit product.

Use code	IUCLID Use Name	Chesar Use Name	Life Cycle Stage	C&L status	EU Tonnage T/yr (Historic data)	PETRORISK product lifecycle information	PETRORISK Local/CSR	Exposure Scenario Human Health	Exposure Scenario Environment
M-1	01 - Manufacture of substance (classified; excluding H340, H350 and H361; (containing less than 0.1% benzene))	Manufacture of substance	Manufacture	Classified non-CMR	5,062,558	Manufacture of substance	Manufacture of substance	HH Manufacture 1	Env Manufacture
M-2	01 - Manufacture of substance (classified; including H340 and/or H350 and/or H361; (containing 0% to 1% benzene))	Manufacture of substance; Closed systems; Level I	Manufacture	Classified CMR	105,044,368	Manufacture of substance	Manufacture of substance	HH Manufacture 2	Env Manufacture
M-3	01 - Manufacture of substance (classified; including H340, H350 and/or H361; (containing equal to or greater than 1% to 5% benzene))	Manufacture of substance; Closed systems; Level II	Manufacture	Classified CMR	1,753,101	Manufacture of substance	Manufacture of substance	HH Manufacture 3	Env Manufacture
M-4	01 - Manufacture of substance (classified; including H340, H350 and/or H361; (containing equal to or greater than 5% to 20% benzene))	Manufacture of substance; Closed systems; Level III	Manufacture	Classified CMR	11,000	Manufacture of substance	Manufacture of substance	HH Manufacture 4	Env Manufacture
M-5	01 - Manufacture of substance (classified; including H340, H350 and/or H361; (containing equal to or greater than 20% to 79% benzene))	Manufacture of substance; Closed systems; Level IV	Manufacture	Classified CMR	2,000	Manufacture of substance	Manufacture of substance	HH Manufacture 5	Env Manufacture
F-16	02 - Formulation & (re)packing of substances and mixtures (classified; excluding H340, H350 and H361; (containing less than 0.1% benzene))	Formulation & (re)packing of substances and mixtures	Formulation	Classified non-CMR	5,062,977	Formulation & (re)packing of substances and mixtures	Formulation & (re)packing of substances and mixtures	HH Formulation 1	Env Formulation
F-17	02 - Formulation & (re)packing of substances and mixtures (classified; including H340 and/or H350 and/or H361; (containing 0% to 1% benzene))	Formulation & (re)packing of substances and mixtures; Closed systems; Level I	Formulation	Classified CMR	94,753,838	Formulation & (re)packing of substances and mixtures	Formulation & (re)packing of substances and mixtures	HH Formulation 2	Env Formulation
F-18	02 - Formulation & (re)packing of substances and mixtures (classified; including H340, H350 and/or H361; (containing equal to or greater than 1% to 5% benzene))	Formulation & (re)packing of substances and mixtures; Closed systems; Level II	Formulation	Classified CMR	140,000	Formulation & (re)packing of substances and mixtures	Formulation & (re)packing of substances and mixtures	HH Formulation 3	Env Formulation
F-19	02 - Formulation & (re)packing of substances and mixtures (classified; including H340, H350 and/or H361; (containing equal to or greater than 5% to 20% benzene))	Formulation & (re)packing of substances and mixtures; Closed systems; Level III	Formulation	Classified CMR	11,000	Formulation & (re)packing of substances and mixtures	Formulation & (re)packing of substances and mixtures	HH Formulation 4	Env Formulation
F-20	02 - Formulation & (re)packing of substances and mixtures (classified; including H340, H350 and/or H361; (containing equal to or greater than 20% to 79% benzene))	Formulation & (re)packing of substances and mixtures; Closed systems; Level IV	Formulation	Classified CMR	2,000	Formulation & (re)packing of substances and mixtures	Formulation & (re)packing of substances and mixtures	HH Formulation 5	Env Formulation
IW-7	01b - Use of substance as intermediate (classified; including H340 and/or H350 and/or H361; (containing 0% to 1% benzene))	Use as an intermediate; Closed systems; Level I	Industrial	Classified CMR	4,915,320	Use as an intermediate	Use as an intermediate	HH Intermediate 2	Env Intermediate
IW-8	01b - Use of substance as intermediate (classified; including H340, H350 and/or H361; (containing equal to or greater than 1% to 5% benzene))	Use as an intermediate; Closed systems; Level II	Industrial	Classified CMR	1,268,176	Use as an intermediate	Use as an intermediate	HH Intermediate 3	Env Intermediate
IW-29	12a - Use in fuel: Industrial (classified; including H340 and/or H350 and/or H361; (containing 0% to 1% benzene))	Use in fuel; Industrial; Closed systems; Level I	Industrial	Classified CMR	9,865,112	Use in fuel; Industrial	Use in fuel; Industrial	HH Ind Fuel 2	Env Ind Fuel
IW-501	12a - Use in fuel: Industrial (classified; including H340, H350 and/or H361; (containing equal to or greater than 1% to 5% benzene))	Use in fuel; Industrial; Closed systems; Level II	Industrial	Classified CMR	10,000	Use in fuel; Industrial	Use in fuel; Industrial	HH Ind Fuel 3	Env Ind Fuel
PW-30	12b - Use in fuel: Professional (classified; excluding H340, H350 and H361; (containing less than 0.1% benzene))	Use in fuel; Professional	Professional	Classified non-CMR	45,977	Use in fuel; Professional	Use in fuel; Professional	HH Prf Fuel 1	Env Prf Fuel
PW-31	12b - Use in fuel: Professional (classified; including H340 and/or H350 and/or H361; (containing 0% to 1% benzene))	Use in fuel; Professional; Closed systems	Professional	Classified CMR	9,011,253	Use in fuel; Professional	Use in fuel; Professional	HH Prf Fuel 2&3&4&5	Env Prf Fuel
PW-504	12b - Use in fuel: Professional (classified; including H340, H350 and/or H361; (containing equal to or greater than 1% to 5% benzene))	Use in fuel; Professional; Closed systems	Professional	Classified CMR	20,000	Use in fuel; Professional	Use in fuel; Professional	HH Prf Fuel 2&3&4&5	Env Prf Fuel
PW-505	12b - Use in fuel: Professional (classified; including H340, H350 and/or H361; (containing equal to or greater than 5% to 20% benzene))	Use in fuel; Professional; Closed systems	Professional	Classified CMR	1,000	Use in fuel; Professional	Use in fuel; Professional	HH Prf Fuel 2&3&4&5	Env Prf Fuel
PW-506	12b - Use in fuel: Professional (classified; including H340, H350 and/or H361; (containing equal to or greater than 20% to 79% benzene))	Use in fuel; Professional; Closed systems	Professional	Classified CMR	1,000	Use in fuel; Professional	Use in fuel; Professional	HH Prf Fuel 2&3&4&5	Env Prf Fuel
C-32	12c - Use in fuel: Consumer (classified; excluding H340, H350 and H361; (containing less than 0.1% benzene))	Use in fuel; Consumer	Consumer	Classified non-CMR	5,017,000	Use in fuel; Consumer	Use in fuel; Consumer	HH Cns Fuel 1&2&3&4&5	Env Cns Fuel
C-33	12c - Use in fuel: Consumer (classified; including H340 and/or H350 and/or H361; (containing 0% to 1% benzene))	Use in fuel; Consumer	Consumer	Classified CMR	75,877,472	Use in fuel; Consumer	Use in fuel; Consumer	HH Cns Fuel 1&2&3&4&5	Env Cns Fuel
C-507	12c - Use in fuel: Consumer (classified; including H340, H350 and/or H361; (containing equal to or greater than 1% to 5% benzene))	Use in fuel; Consumer	Consumer	Classified CMR	110,000	Use in fuel; Consumer	Use in fuel; Consumer	HH Cns Fuel 1&2&3&4&5	Env Cns Fuel
C-508	12c - Use in fuel: Consumer (classified; including H340, H350 and/or H361; (containing equal to or greater than 5% to 20% benzene))	Use in fuel; Consumer	Consumer	Classified CMR	10,000	Use in fuel; Consumer	Use in fuel; Consumer	HH Cns Fuel 1&2&3&4&5	Env Cns Fuel
C-509	12c - Use in fuel: Consumer (classified; including H340, H350 and/or H361; (containing equal to or greater than 20% to 79% benzene))	Use in fuel; Consumer	Consumer	Classified CMR	1,000	Use in fuel; Consumer	Use in fuel; Consumer	HH Cns Fuel 1&2&3&4&5	Env Cns Fuel

GOTO USES

Section 1	
Title	
01 - Manufacture of substance	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 4, 8a, 8b, 9, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <0.1% [] Covers percentage n-hexane in the substance up to <3% [] Covers percentage toluene in the substance up to <3% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_3, PROC_2, PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Open systems (PROC_4)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412]
Process sampling (PROC_9)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412]
Laboratory activities (PROC_15)	No other specific measures identified. [ESCom-11133171454] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-92672303011]*
Bulk transfers; Closed systems (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Bulk transfers; Open systems (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Ensure no splashing occurs during transfer. [ESCom-16173221409]*
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-92672301031]*
Storage (PROC_2, PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
01 - Manufacture of substance; Closed systems; Level I	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Manufacture of the substance or use as a process chemical or extraction agent within closed or contained systems. Includes incidental exposures during recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <1% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_2, PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Batch process; Closed systems (PROC_3)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_2, PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
01 - Manufacture of substance; Closed systems; Level II	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Manufacture of the substance or use as a process chemical or extraction agent within closed or contained systems. Includes incidental exposures during recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <5% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Closed systems (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Batch process; Closed systems (PROC_3)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Storage (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	

4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]

GOTO USES

Section 1	
Title	
01 - Manufacture of substance; Closed systems; Level III	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Manufacture of the substance or use as a process chemical or extraction agent within closed or contained systems. Includes incidental exposures during recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <20% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General measures (eye irritants) [ESCom-11133171329]	Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands. [ESCom-11133171329 ESCom-11133171467 ESCom-11133171429]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Closed systems (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Batch process; Closed systems (PROC_3)	Covers use up to 4.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Ensure operation is undertaken outdoors. [ESCom-11133171425] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Covers use up to 4.0 h/day [ESCom-11133171521] Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422] Wear a respirator conforming to EN140. [ESCom-15193135617]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Storage (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]

Section 3 Exposure Estimation
3.1. Health
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Section 4 Guidance to check compliance with the Exposure Scenario
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Available hazard data do not enable the derivation of a DNEL for eye irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171330; ESCom-11133171322]

GOTO USES

Section 1	
Title	
01 - Manufacture of substance; Closed systems; Level IV	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Manufacture of the substance or use as a process chemical or extraction agent within closed or contained systems. Includes incidental exposures during recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General measures (eye irritants) [ESCom-11133171329]	Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands. [ESCom-11133171329 ESCom-11133171467 ESCom-11133171429]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Closed systems (PROC_2)	Covers use up to 1.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
General exposures; Batch process; Closed systems (PROC_3)	Covers use up to 1.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Ensure operation is undertaken outdoors. [ESCom-11133171425] Assumes process temperature up to 800.0 °C [ESCom-12355002161]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Covers use up to 4.0 h/day [ESCom-11133171521] Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422] Wear a respirator conforming to EN140. [ESCom-15193135617]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Provide a good standard of controlled ventilation (5 to 10 air changes per hour). [ESCom-12355002164] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]

Storage (PROC_2)	Covers use up to 1.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Available hazard data do not enable the derivation of a DNEL for eye irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171330; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
02 - Formulation & (re)packing of substances and mixtures	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 4, 5, 8a, 8b, 9, 14, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <0.1% [] Covers percentage n-hexane in the substance up to <3% [] Covers percentage toluene in the substance up to <3% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_2, PROC_1, PROC_3)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Open systems (PROC_4)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412]
Batch process; Elevated temperature; Use in contained systems (PROC_3)	Handle substance within a closed system. [ESCom-11133171405] Assumes process temperature up to 60.0 °C [ESCom-12355002161]
Process sampling (PROC_9)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412]
Laboratory activities (PROC_15)	No other specific measures identified. [ESCom-11133171454] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Ensure no splashing occurs during transfer. [ESCom-16173221409]*
Mixing operations; Open systems (PROC_5)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412]
Manual; Transfer from/pouring from containers; Non-dedicated facility (PROC_8a)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Drum/batch transfers; Dedicated facility (PROC_8b)	Use drum pumps. [ESCom-11133171411] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Ensure no splashing occurs during transfer. [ESCom-16173221409]*
Tabletting, compression, extrusion or pelletisation (PROC_14)	Handle substance within a predominantly closed system provided with extract ventilation. [ESCom-11133171407]
Drum and small package filling (PROC_9)	Fill containers/cans at dedicated fill points supplied with local extract ventilation. [ESCom-11133171409]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_2, PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
02 - Formulation & (re)packing of substances and mixtures; Closed systems; Level I	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Formulation of the substance and its mixtures in batch or continuous operations within closed or contained systems, including incidental exposures during storage, materials transfers, mixing, maintenance, sampling and associated laboratory activities.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <1% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_2, PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Batch process; Closed systems (PROC_3)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-92672303011]*
Bulk transfers; Drum/batch transfers; Closed systems (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_2, PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
02 - Formulation & (re)packing of substances and mixtures; Closed systems; Level II	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Formulation of the substance and its mixtures in batch or continuous operations within closed or contained systems, including incidental exposures during storage, materials transfers, mixing, maintenance, sampling and associated laboratory activities.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <5% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Closed systems (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Batch process; Closed systems (PROC_3)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Storage (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]

GOTO USES

Section 1	
Title	
02 - Formulation & (re)packing of substances and mixtures; Closed systems; Level III	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Formulation of the substance and its mixtures in batch or continuous operations within closed or contained systems, including incidental exposures during storage, materials transfers, mixing, maintenance, sampling and associated laboratory activities.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the substance up to <20% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General measures (eye irritants) [ESCom-11133171329]	Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands. [ESCom-11133171329 ESCom-11133171467 ESCom-11133171429]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Closed systems (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Batch process; Closed systems (PROC_3)	Covers use up to 4.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Ensure operation is undertaken outdoors. [ESCom-11133171425]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Covers use up to 4.0 h/day [ESCom-11133171521] Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422] Wear a respirator conforming to EN140. [ESCom-15193135617]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Storage (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Section 4 Guidance to check compliance with the Exposure Scenario
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Available hazard data do not enable the derivation of a DNEL for eye irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171330; ESCom-11133171322]

GOTO USES

Section 1	
Title	
02 - Formulation & (re)packing of substances and mixtures; Closed systems; Level IV	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Formulation of the substance and its mixtures in batch or continuous operations within closed or contained systems, including incidental exposures during storage, materials transfers, mixing, maintenance, sampling and associated laboratory activities.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General measures (eye irritants) [ESCom-11133171329]	Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands. [ESCom-11133171329 ESCom-11133171467 ESCom-11133171429]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Closed systems (PROC_2)	Covers use up to 1.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Batch process; Closed systems (PROC_3)	Covers use up to 1.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361] Ensure operation is undertaken outdoors. [ESCom-11133171425]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Covers use up to 4.0 h/day [ESCom-11133171521] Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422] Wear a respirator conforming to EN140. [ESCom-15193135617]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Provide a good standard of controlled ventilation (5 to 10 air changes per hour). [ESCom-12355002164] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Storage (PROC_2)	Covers use up to 1.0 h/day [ESCom-11133171521] Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	

3.1. Health
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Section 4 Guidance to check compliance with the Exposure Scenario
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Available hazard data do not enable the derivation of a DNEL for eye irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171330; ESCom-11133171322]

GOTO USES

Section 1	
Title	
01b - Use as an intermediate; Closed systems; Level I	
Use Descriptor	
Sector(s) of Use	8, 9
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Use of substance as an intermediate within closed or contained systems (not related to Strictly Controlled Conditions). Includes incidental exposures during recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_2, PROC_1)	Covers percentage benzene in the final product up to <1% [] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Batch process; Closed systems (PROC_3)	Covers percentage benzene in the final product up to <1% [] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Laboratory activities (PROC_15)	Covers percentage benzene in the final product up to <0.1%, <1%, <5%, <20%, <79% [] Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Covers percentage benzene in the final product up to <1% [] Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers percentage benzene in the final product up to <1% [] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_2, PROC_1)	Covers percentage benzene in the final product up to <1% [] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
01b - Use as an intermediate; Closed systems; Level II	
Use Descriptor	
Sector(s) of Use	8, 9
Process Categories	1, 2, 3, 8a, 8b, 15, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Use of substance as an intermediate within closed or contained systems (not related to Strictly Controlled Conditions). Includes incidental exposures during recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the final product up to <5% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Closed systems (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Batch process; Closed systems (PROC_3)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Laboratory activities (PROC_15)	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. [ESCom-10133224826] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Put lids on containers immediately after use. [ESCom-9267230301]*
Bulk transfers; Closed systems; Loading and unloading (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Storage (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal defatting effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-16354132200; ESCom-11133171322]

GOTO USES

Section 1	
Title	
12a - Use in fuel; Industrial; Closed systems; Level I	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 8a, 8b, 16, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers the use as a fuel (or fuel additives and additive components) within closed or contained systems, including incidental exposures during activities associated with its transfer, use, equipment maintenance and handling of waste.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the final product up to <1% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
Bulk transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Drum/batch transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
General exposures; Closed systems (PROC_2, PROC_1)	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). [ESCom-11133171363] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Use of fuels; Closed systems (PROC_16)	Handle substance within a closed system. [ESCom-11133171405]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). [ESCom-11133171363] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_2, PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
12a - Use in fuel; Industrial; Closed systems; Level II	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 8a, 8b, 16, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers the use as a fuel (or fuel additives and additive components) within closed or contained systems, including incidental exposures during activities associated with its transfer, use, equipment maintenance and handling of waste.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the final product up to <5% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
Bulk transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Drum/batch transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
General exposures; Closed systems (PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
General exposures; Closed systems (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Use of fuels; Closed systems (PROC_16)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422] Handle substance within a closed system. [ESCom-11133171405]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). [ESCom-11133171363] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Storage (PROC_2)	Provide extract ventilation to points where emissions occur. [ESCom-11133171412] Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]

GOTO USES

Section 1	
Title	
12b - Use in fuel; Professional	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 8a, 8b, 16, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the final product up to <0.1% [] Covers percentage n-hexane in the final product up to <3% [] Covers percentage toluene in the final product up to <3% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
Bulk transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Drum/batch transfers; Dedicated facility (PROC_8b)	Use drum pumps. [ESCom-11133171411] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Ensure no splashing occurs during transfer. [ESCom-16173221409]*
Refuelling (PROC_8b)	Use drum pumps. [ESCom-11133171411] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Ensure no splashing occurs during transfer. [ESCom-16173221409]*
General exposures; Closed systems (PROC_2, PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Use of fuels; Closed systems (PROC_16)	Handle substance within a closed system. [ESCom-11133171405]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_2, PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
12b - Use in fuel; Professional; Closed systems	
Use Descriptor	
Sector(s) of Use	
Process Categories	1, 2, 8a, 8b, 16, 28
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers the use as a fuel (or fuel additives and additive components) within closed or contained systems, including incidental exposures during activities associated with its transfer, use, equipment maintenance and handling of waste.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of worker exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	Liquid, vapour pressure > 10 kPa at Standard Temperature and Pressure [ESCom-11133171335]
Concentration of substance in product	Covers percentage substance in the product up to 100 %. (unless stated differently) [ESCom-11133171310 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200] Covers percentage benzene in the final product up to <1% []
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently) [ESCom-11133171304 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Other Operational Conditions affecting exposure	Assumes a good basic standard of occupational hygiene is implemented [ESCom-11133171303] Covers use at ambient temperatures. (unless stated differently) [ESCom-10133224959 ESCom-18309152101 ESCom-16173221408 ESCom-18309152200]
Contributing Scenarios	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	Ensure that direct skin contact is avoided. Identify potential areas for indirect skin contact. Wear suitable gloves tested to EN374. Clear spills immediately. Wash off any skin contamination immediately. For further specification, refer to section 8 of the SDS. [ESCom-10133224705 ESCom-11133170587 ESCom-15193135704 ESCom-10133224896 ESCom-9267230103 ESCom-15193135705 ESCom-12355002165]
General measures (carcinogens) [ESCom-10133224704]	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down and flush system prior to equipment break-in or maintenance. Access to work area only for authorised persons. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Wear suitable coveralls to prevent exposure to the skin. Wear respiratory protection when its use is identified for certain contributing scenarios. For further specification, refer to section 8 of the SDS. Clear spills immediately. Dispose of this material and its container at hazardous or special waste collection point. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Ensure control measures are regularly inspected and maintained. Consider the need for risk based health surveillance. [ESCom-10133224704 ESCom-15193135706 ESCom-15193135707 ESCom-11133171413 ESCom-16354140200 ESCom-11133171457 ESCom-11133171468 ESCom-15193135708 ESCom-12355002165 ESCom-9267230103 ESCom-11133170664 ESCom-15193135709 ESCom-11133171359 ESCom-15193135710]
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
Bulk transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Drum/batch transfers; Dedicated facility (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
Refuelling (PROC_8b)	Ensure material transfers are under containment or extract ventilation. [ESCom-11133171422]
General exposures; Closed systems (PROC_2, PROC_1)	Handle substance within a closed system. [ESCom-11133171405] Sample via a closed loop or other system to avoid exposure. [ESCom-11133171361]
Use of fuels; Closed systems (PROC_16)	Handle substance within a closed system. [ESCom-11133171405]
Equipment cleaning and maintenance (PROC_8a, PROC_28)	Covers use up to 4.0 h/day [ESCom-11133171521] Drain down and flush system prior to equipment break-in or maintenance. [ESCom-11133171413] Wear a respirator conforming to EN140. [ESCom-15193135617] **Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.** *Wear suitable coveralls to prevent exposure to the skin. [ESCom-11133171468]* *Clear spills immediately. [ESCom-9267230103]*
Storage (PROC_2, PROC_1)	Store substance within a closed system. [ESCom-11133171437]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-10133224709; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
12c - Use in fuel; Consumer	
Use Descriptor	
Sector(s) of Use	
Product Categories	13
Environmental Release Categories	
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers consumer uses in liquid fuels	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.1 Control of consumer exposure	
Product characteristics	
Physical form of product	Liquid
Vapour pressure	-
Concentration of substance in product	-
Frequency and duration of use/exposure	Covers use up to 1.0 events per day [ESCom-11133171521]
Other Operational Conditions affecting exposure	-
Product Category	**Specific Risk Management Measures and Operating Conditions**
General measures (skin irritants) [ESCom-10133224705]	; Ensure there is no direct skin contact with product; Remove accidental skin contamination. []
General measures (flammability) [ESCom-19350151900]	For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8. [ESCom-19350151900 ESCom-16354135500]
General measures (aspiration hazard)	Do not ingest. If swallowed then seek immediate medical assistance. [ESCom-19350151700 ESCom-9313214709 ESCom-15193135612]
Fuels; Liquid; Automotive refuelling; (; Gasoline;) (PC_13) *Based on Concawe_SCED_13_1_a*	Covers concentrations up to 100 %; Covers percentage benzene in the final product up to <1% [] For each use event, covers use amounts up to 37500.0 g/event [ESCom-11133171520] Exposure duration = 0.05 h/event [ESCom-11133170461] Outdoor use [ESCom-9313213238] Assumes that potential dermal contact is limited to palm of one hand []
Fuels; Liquid; Recreational vehicles; (; Quad bikes or similar;) (PC_13) *Based on Concawe_SCED_13_7_a*	Covers concentrations up to 100 %; Covers percentage benzene in the final product up to <1% [] For each use event, covers use amounts up to 7500.0 g/event [ESCom-11133171520] Exposure duration = 0.017 h/event [ESCom-11133170461] Outdoor use [ESCom-9313213238] Assumes that potential dermal contact is limited to palm of one hand []
Fuels; Liquid; Garden equipment (PC_13) *Based on Concawe_SCED_13_4_a*	Covers concentrations up to 100 %; Covers percentage benzene in the final product up to <0.1%; Covers percentage n-hexane in the final product up to <3%; Covers percentage toluene in the final product up to <3% [] For each use event, covers use amounts up to 750.0 g/event [ESCom-11133171520] Exposure duration = 0.033 h/event [ESCom-11133170461] Assumes that potential dermal contact is limited to inside hands / one hand / palm of hands. [ESCom-123550002181]
Section 3 Exposure Estimation	
3.1. Health	
The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.1. 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.; Available hazard data do not enable the derivation of a DNEL for carcinogenic effects.; Available hazard data do not enable the derivation of a DNEL for aspiration effects.; Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.; Risk management measures are based on qualitative risk characterisation. [ESCom-11133171315; ESCom-11133171318; ESCom-16354132600; ESCom-11133171317; ESCom-11133171322]	

GOTO USES

Section 1	
Title	
01 - Manufacture of substance	
Use Descriptor	
Sector(s) of Use	
Process Categories	
Environmental Release Categories	1
Specific Environmental Release Category	ESVOC SpERC 1.1.v1
Processes, tasks, activities covered	
Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities.	
Assessment Method	
See Section 3.	
Section 2 Operational conditions and risk management measures	
Section 2.2 Control of environmental exposure	
Product characteristics	
Substance is complex UVCB. [ESCom-11133171600] Predominantly hydrophobic. [ESCom-11133171601]	
Amounts used	
Fraction of EU tonnage used in region	0.1
Regional use tonnage (tonnes/year)	1.1E+07
Fraction of Regional tonnage used locally	4.5E-01
Annual site tonnage (tonnes/year)	5.0E+06
Maximum daily site tonnage (kg/day)	1.7E+07
Frequency and duration of use	
Continuous release. [ESCom-10133212701]	
Emission days (days/year)	300
Environmental factors not influenced by risk management	
Local freshwater dilution factor	10
Local marine water dilution factor	100
Other given operational conditions affecting environmental exposure	
Release fraction to air from process (initial release prior to RMM)	8.5E-04
Release fraction to wastewater from process (initial release prior to RMM)	1.5E-05
Release fraction to soil from process (initial release prior to RMM)	0.0001
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used. [ESCom-10133220229]	
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	
Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation). [TCR1k]	
Prevent discharge of undissolved substance to or recover from onsite wastewater. [ESCom-10133221223]	
If discharging to domestic sewage treatment plant, no onsite wastewater treatment required [TCR9]	
Treat air emission to provide a typical removal efficiency of (%)	9.0E+01
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency >= (%)	94.4
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of >= (%)	0.0
Organisation measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. [ESCom-10133221228] Sludge should be incinerated, contained or reclaimed. [ESCom-10133221229]	
Conditions and measures related to municipal sewage treatment plant	
Not applicable as there is no release to wastewater. [ESCom-10133222100]	
Estimated substance removal from wastewater via domestic sewage treatment (%)	96.1
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	96.1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	1.9E+07
Assumed domestic sewage treatment plant flow (m3/d)	1.0E+04
Conditions and measures related to external treatment of waste for disposal	
During manufacturing no waste of the substance is generated. [ESCom-10133222904]	
Conditions and measures related to external recovery of waste	
During manufacturing no waste of the substance is generated. [ESCom-10133222904]	
Section 3 Exposure Estimation	
3.2. Environment	
The Hydrocarbon Block Method has been used to calculate environmental exposure with the PETRORISK model. [ESCom-11133171701]	
Section 4 Guidance to check compliance with the Exposure Scenario	
4.2. 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. [ESCom-10133223600] Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. [ESCom-10133223601] Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. [ESCom-10133223602] Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html). [ESCom-10133223603]	
Maximum Risk Characterisation Ratio for Air Emissions RCRair	8.1E-01
Maximum Risk Characterisation Ratio for Wastewater Emissions RCRwater	7.1E-01

GOTO USES

Section 1		
Title		
02 - Formulation & (re)packing of substances and mixtures		
Use Descriptor		
Sector(s) of Use		
Process Categories		
Environmental Release Categories	2	
Specific Environmental Release Category	ESVOC SpERC 2.2.v1	
Processes, tasks, activities covered		
Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.		
Assessment Method		
See Section 3.		
Section 2 Operational conditions and risk management measures		
Section 2.2 Control of environmental exposure		
Product characteristics		
Substance is complex UVCB. [ESCom-11133171600] Predominantly hydrophobic. [ESCom-11133171601]		
Amounts used		
Fraction of EU tonnage used in region		0.1
Regional use tonnage (tonnes/year)		1.0E+07
Fraction of Regional tonnage used locally		3.0E-03
Annual site tonnage (tonnes/year)		3.0E+04
Maximum daily site tonnage (kg/day)		1.0E+05
Frequency and duration of use		
Continuous release. [ESCom-10133212701]		
Emission days (days/year)		300
Environmental factors not influenced by risk management		
Local freshwater dilution factor		10
Local marine water dilution factor		100
Other given operational conditions affecting environmental exposure		
Release fraction to air from process (after typical onsite RMMs, consistent with EU Solvent Emissions Directive requirements)		1.5E-02
Release fraction to wastewater from process (initial release prior to RMM)		6.0E-04
Release fraction to soil from process (initial release prior to RMM)		0.0001
Technical conditions and measures at process level (source) to prevent release		
Common practices vary across sites thus conservative process release estimates used. [ESCom-10133220229]		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		
Risk from environmental exposure is driven by freshwater sediment. [TCR1b]		
Prevent discharge of undissolved substance to or recover from onsite wastewater. [ESCom-10133221223]		
If discharging to domestic sewage treatment plant, no onsite wastewater treatment required [TCR9]		
Treat air emission to provide a typical removal efficiency of (%)		0.0E+00
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency >= (%)		95.3
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of >= (%)		0.0
Organisation measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils. [ESCom-10133221228] Sludge should be incinerated, contained or reclaimed. [ESCom-10133221229]		
Conditions and measures related to municipal sewage treatment plant		
Not applicable as there is no release to wastewater. [ESCom-10133222100]		
Estimated substance removal from wastewater via domestic sewage treatment (%)		96.1
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		96.1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		1.1E+05
Assumed domestic sewage treatment plant flow (m3/d)		2.0E+03
Conditions and measures related to external treatment of waste for disposal		
External treatment and disposal of waste should comply with applicable local and/or national regulations. [ESCom-10133222903]		
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable local and/or national regulations. [ESCom-10133223500]		
Section 3 Exposure Estimation		
3.2. Environment		
The Hydrocarbon Block Method has been used to calculate environmental exposure with the PETRORISK model. [ESCom-11133171701]		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.2. 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. [ESCom-10133223600] Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. [ESCom-10133223601] Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. [ESCom-10133223602] Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html). [ESCom-10133223603]		
Maximum Risk Characterisation Ratio for Air Emissions RCRair		8.2E-01
Maximum Risk Characterisation Ratio for Wastewater Emissions RCRwater		8.4E-01

GOTO USES

Section 1		
Title		
01b - Use of substance as intermediate		
Use Descriptor		
Sector(s) of Use		
Process Categories		
Environmental Release Categories	6a	
Specific Environmental Release Category	ESVOC SpERC 6.1a.v1	
Processes, tasks, activities covered		
Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).		
Assessment Method		
See Section 3.		
Section 2 Operational conditions and risk management measures		
Section 2.2 Control of environmental exposure		
Product characteristics		
Substance is complex UVCB. [ESCom-11133171600] Predominantly hydrophobic. [ESCom-11133171601]		
Amounts used		
Fraction of EU tonnage used in region		0.1
Regional use tonnage (tonnes/year)		6.2E+05
Fraction of Regional tonnage used locally		2.4E-02
Annual site tonnage (tonnes/year)		1.5E+04
Maximum daily site tonnage (kg/day)		5.0E+04
Frequency and duration of use		
Continuous release. [ESCom-10133212701]		
Emission days (days/year)		300
Environmental factors not influenced by risk management		
Local freshwater dilution factor		10
Local marine water dilution factor		100
Other given operational conditions affecting environmental exposure		
Release fraction to air from process (initial release prior to RMM)		2.5E-02
Release fraction to wastewater from process (initial release prior to RMM)		1.3E-03
Release fraction to soil from process (initial release prior to RMM)		0.001
Technical conditions and measures at process level (source) to prevent release		
Common practices vary across sites thus conservative process release estimates used. [ESCom-10133220229]		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		
Risk from environmental exposure is driven by freshwater sediment. [TCR1b]		
Prevent discharge of undissolved substance to or recover from onsite wastewater. [ESCom-10133221223]		
If discharging to domestic sewage treatment plant, no onsite wastewater treatment required [TCR9]		
Treat air emission to provide a typical removal efficiency of (%)		8.0E+01
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency >= (%)		95.5
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of >= (%)		0.0
Organisation measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils. [ESCom-10133221228] Sludge should be incinerated, contained or reclaimed. [ESCom-10133221229]		
Conditions and measures related to municipal sewage treatment plant		
Not applicable as there is no release to wastewater. [ESCom-10133222100]		
Estimated substance removal from wastewater via domestic sewage treatment (%)		96.1
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		96.1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		5.7E+04
Assumed domestic sewage treatment plant flow (m3/d)		2.0E+03
Conditions and measures related to external treatment of waste for disposal		
This substance is consumed during use and no waste of the substance is generated. [ESCom-10133223502]		
Conditions and measures related to external recovery of waste		
This substance is consumed during use and no waste of the substance is generated. [ESCom-10133223502]		
Section 3 Exposure Estimation		
3.2. Environment		
The Hydrocarbon Block Method has been used to calculate environmental exposure with the PETRORISK model. [ESCom-11133171701]		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.2. 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. [ESCom-10133223600] Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. [ESCom-10133223601] Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. [ESCom-10133223602] Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html). [ESCom-10133223603]		
Maximum Risk Characterisation Ratio for Air Emissions RCRair		1.6E-01
Maximum Risk Characterisation Ratio for Wastewater Emissions RCRwater		8.8E-01

GOTO USES

Section 1		
Title		
12a - Use in fuel: Industrial		
Use Descriptor		
Sector(s) of Use		
Process Categories		
Environmental Release Categories	7	
Specific Environmental Release Category	ESVOC SpERC 7.12a.v1	
Processes, tasks, activities covered		
Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.		
Assessment Method		
See Section 3.		
Section 2 Operational conditions and risk management measures		
Section 2.2 Control of environmental exposure		
Product characteristics		
Substance is complex UVCB. [ESCom-11133171600] Predominantly hydrophobic. [ESCom-11133171601]		
Amounts used		
Fraction of EU tonnage used in region		0.1
Regional use tonnage (tonnes/year)		9.9E+05
Fraction of Regional tonnage used locally		1.0E+00
Annual site tonnage (tonnes/year)		9.9E+05
Maximum daily site tonnage (kg/day)		3.3E+06
Frequency and duration of use		
Continuous release. [ESCom-10133212701]		
Emission days (days/year)		300
Environmental factors not influenced by risk management		
Local freshwater dilution factor		10
Local marine water dilution factor		100
Other given operational conditions affecting environmental exposure		
Release fraction to air from process (initial release prior to RMM)		5.0E-02
Release fraction to wastewater from process (initial release prior to RMM)		1.0E-05
Release fraction to soil from process (initial release prior to RMM)		0
Technical conditions and measures at process level (source) to prevent release		
Common practices vary across sites thus conservative process release estimates used. [ESCom-10133220229]		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		
Risk from environmental exposure is driven by freshwater sediment. [TCR1b]		
If discharging to domestic sewage treatment plant, no onsite wastewater treatment required [TCR9]		
Treat air emission to provide a typical removal efficiency of (%)		9.5E+01
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency >= (%)		91.5
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of >= (%)		0.0
Organisation measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils. [ESCom-10133221228] Sludge should be incinerated, contained or reclaimed. [ESCom-10133221229]		
Conditions and measures related to municipal sewage treatment plant		
Not applicable as there is no release to wastewater. [ESCom-10133222100]		
Estimated substance removal from wastewater via domestic sewage treatment (%)		96.1
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		96.1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		7.1E+06
Assumed domestic sewage treatment plant flow (m3/d)		2.0E+03
Conditions and measures related to external treatment of waste for disposal		
Combustion emissions limited by required exhaust emission controls. [ESCom-10133222901] Combustion emissions considered in regional exposure assessment. [ESCom-10133222902] External treatment and disposal of waste should comply with applicable local and/or national regulations. [ESCom-10133222903]		
Conditions and measures related to external recovery of waste		
This substance is consumed during use and no waste of the substance is generated. [ESCom-10133223502]		
Section 3 Exposure Estimation		
3.2. Environment		
The Hydrocarbon Block Method has been used to calculate environmental exposure with the PETRORISK model. [ESCom-11133171701]		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.2. 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. [ESCom-10133223600] Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. [ESCom-10133223601] Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. [ESCom-10133223602] Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html). [ESCom-10133223603]		
Maximum Risk Characterisation Ratio for Air Emissions RCRair		3.0E-02
Maximum Risk Characterisation Ratio for Wastewater Emissions RCRwater		4.6E-01

GOTO USES

Section 1		
Title		
12b - Use in fuel: Professional		
Use Descriptor		
Sector(s) of Use		
Process Categories		
Environmental Release Categories	9a, 9b	
Specific Environmental Release Category	ESVOC SpERC 9.12b.v1	
Processes, tasks, activities covered		
Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.		
Assessment Method		
See Section 3.		
Section 2 Operational conditions and risk management measures		
Section 2.2 Control of environmental exposure		
Product characteristics		
Substance is complex UVCB. [ESCom-11133171600] Predominantly hydrophobic. [ESCom-11133171601]		
Amounts used		
Fraction of EU tonnage used in region		0.1
Regional use tonnage (tonnes/year)		9.1E+05
Fraction of Regional tonnage used locally		5.0E-04
Annual site tonnage (tonnes/year)		4.5E+02
Maximum daily site tonnage (kg/day)		1.2E+03
Frequency and duration of use		
Continuous release. [ESCom-10133212701]		
Emission days (days/year)		365
Environmental factors not influenced by risk management		
Local freshwater dilution factor		10
Local marine water dilution factor		100
Other given operational conditions affecting environmental exposure		
Release fraction to air from wide dispersive use (regional use only)		5.0E-03
Release fraction to wastewater from wide dispersive use		1.0E-06
Release fraction to soil from wide dispersive use (regional use only)		0.00025
Technical conditions and measures at process level (source) to prevent release		
Common practices vary across sites thus conservative process release estimates used. [ESCom-10133220229]		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		
Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation). [TCR1k]		
No wastewater treatment required [TCR6]		
Treat air emission to provide a typical removal efficiency of (%)		N/A
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency >= (%)		0.0
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of >= (%)		0.0
Organisation measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils. [ESCom-10133221228] Sludge should be incinerated, contained or reclaimed. [ESCom-10133221229]		
Conditions and measures related to municipal sewage treatment plant		
Not applicable as there is no release to wastewater. [ESCom-10133222100]		
Estimated substance removal from wastewater via domestic sewage treatment (%)		96.1
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		96.1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		5.2E+04
Assumed domestic sewage treatment plant flow (m3/d)		2.0E+03
Conditions and measures related to external treatment of waste for disposal		
Combustion emissions limited by required exhaust emission controls. [ESCom-10133222901] Combustion emissions considered in regional exposure assessment. [ESCom-10133222902] External treatment and disposal of waste should comply with applicable local and/or national regulations. [ESCom-10133222903]		
Conditions and measures related to external recovery of waste		
This substance is consumed during use and no waste of the substance is generated. [ESCom-10133223502]		
Section 3 Exposure Estimation		
3.2. Environment		
The Hydrocarbon Block Method has been used to calculate environmental exposure with the PETRORISK model. [ESCom-11133171701]		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.2. 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. [ESCom-10133223600] Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. [ESCom-10133223601] Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. [ESCom-10133223602] Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html). [ESCom-10133223603]		
Maximum Risk Characterisation Ratio for Air Emissions RCRair		2.1E-02
Maximum Risk Characterisation Ratio for Wastewater Emissions RCRwater		1.8E-02

GOTO USES

Section 1		
Title		
12c - Use in fuel: Consumer		
Use Descriptor		
Sector(s) of Use		
Product Categories		
Environmental Release Categories	9a, 9b	
Specific Environmental Release Category	ESVOC SpERC 9.12c.v1	
Processes, tasks, activities covered		
Covers consumer uses in liquid fuels		
Assessment Method		
See Section 3.		
Section 2 Operational conditions and risk management measures		
Section 2.2 Control of environmental exposure		
Product characteristics		
Substance is complex UVCB. [ESCom-11133171600] Predominantly hydrophobic. [ESCom-11133171601]		
Amounts used		
Fraction of EU tonnage used in region		0.1
Regional use tonnage (tonnes/year)		8.1E+06
Fraction of Regional tonnage used locally		5.0E-04
Annual site tonnage (tonnes/year)		4.1E+03
Maximum daily site tonnage (kg/day)		1.1E+04
Frequency and duration of use		
Continuous release. [ESCom-10133212701]		
Emission days (days/year)		365
Environmental factors not influenced by risk management		
Local freshwater dilution factor		10
Local marine water dilution factor		100
Other given operational conditions affecting environmental exposure		
Release fraction to air from wide dispersive use (regional use only)		4.0E-03
Release fraction to wastewater from wide dispersive use		2.0E-07
Release fraction to soil from wide dispersive use (regional use only)		0.00005
Conditions and measures related to municipal sewage treatment plant		
Not applicable as there is no release to wastewater. [ESCom-10133222100]		
Estimated substance removal from wastewater via domestic sewage treatment (%)		96.1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		4.6E+05
Assumed domestic sewage treatment plant flow (m3/d)		2.0E+03
Conditions and measures related to external treatment of waste for disposal		
Combustion emissions limited by required exhaust emission controls. [ESCom-10133222901] Combustion emissions considered in regional exposure assessment. [ESCom-10133222902] External treatment and disposal of waste should comply with applicable local and/or national regulations. [ESCom-101332229031		
Conditions and measures related to external recovery of waste		
This substance is consumed during use and no waste of the substance is generated. [ESCom-10133223502]		
Section 3 Exposure Estimation		
3.2. Environment		
The Hydrocarbon Block Method has been used to calculate environmental exposure with the PETRORISK model. [ESCom-11133171701]		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.2. 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. [ESCom-10133223600]		
Maximum Risk Characterisation Ratio for Air Emissions RCRair		2.1E-02
Maximum Risk Characterisation Ratio for Wastewater Emissions RCRwater		1.8E-02