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podľa nariadenia Komisie (EÚ) 2020/878 z 18. júna 2020, ktorým sa mení príloha II k nariadeniu Európskeho parlamentu a Rady (ES) č. 1907/2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemikálií

Technický benzín

Dátum vytvorenia 19. 4. 2018

Dátum revízie 12. 1. 2023 Číslo verzie 3.0

ODDIEL 1: Identifikácia látky/zmesi a spoločnosti/podniku

1.1. Identifikátor produktu Technický benzín

Látka / zmes látka Číslo 77

Chemický názov Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Číslo ES (EINECS) 920-750-0

Registračné číslo 01-2119473851-33-0006

1.2. Relevantné identifikované použitia látky alebo zmesi a použitia, ktoré sa neodporúčajú

Identifikované použitia látky

Deskriptory použitia

SU 10 Príprava [miešanie] prípravkov a/alebo ich prebaľovanie (okrem zliatin)
SU 21 Spotrebiteľské použitia: Domácnosti (= široká verejnosť = spotrebitelia)

SU 22 Profesionálne použitia: Široká verejnosť (administratíva, vzdelávanie, zábava, služby, remeslá)

PC 9a Nátery a farby, riedidlá, odstraňovače náterov

PC 21 Laboratórne chemikálie

PC 35 Produkty na umývanie a čistenie

PROC 8a Presun látky alebo zmesi (plnenie a vypúšťanie) v neurčených zariadeniach
PROC 8b Presun látky alebo zmesi (plnenie a vypúšťanie) v určených zariadeniach

PROC 15 Použitie vo forme laboratórneho činidla

ERC 2 Formulovanie do zmesi

AC 0 Iné

Neodporúčané použitia látky

Produkt nesmie byť používaný inými spôsobmi, než ktoré sú uvedené v oddiele 1.

Prílohou karty bezpečnostných údajov je scenár expozície.

1.3. Údaje o dodávateľovi karty bezpečnostných údajov

Následný užívateľ

Meno alebo obchodné meno ELASTIK spol. s r.o.

Adresa Hlavná 252/104, Šelpice, 91909

Slovensko

Identifikačné číslo (IČ)17642108IČ DPHSK2020390328Telefón00421335903911E-mailelastik@elastik.skAdresa www stránokwww.elastik.sk

Osoba zodpovedná za kartu bezpečnostných údajov

Meno ELASTIK spol. s r.o.
E-mail elastik@elastik.sk

1.4. Núdzové telefónne číslo

NÁRODNÉ TOXIKOLOGICKÉ INFORMAČNÉ CENTRUM, Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinika pracovného lekárstva a toxikológie; Limbová 5, 833 05 Bratislava, telefón: +421 2 54 774 166, mobil: +421 911 166 066, fax: +421 2 547 74 605, e-mail: ntic@ntic.sk.

ODDIEL 2: Identifikácia nebezpečnosti

2.1. Klasifikácia látky alebo zmesi

Klasifikácia látky podľa nariadenia (ES) č. 1272/2008

Látka je klasifikovaná ako nebezpečná.

Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411

Plný text všetkých klasifikácií a H-viet je uvedený v oddieli 16.



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Najzávažnejšie nepriaznivé fyzikálno-chemické účinky

Veľmi horľavá kvapalina a pary.

Najvýznamnejšie nepriaznivé účinky na ľudské zdravie a na životné prostredie

Môže byť smrteľný po požití a vniknutí do dýchacích ciest. Môže spôsobiť ospalosť alebo závraty. Toxický pre vodné organizmy, s dlhodobými účinkami.

2.2. Prvky označovania

Výstražný piktogram



Výstražné slovo

Nebezpečenstvo

Nebezpečná látka

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

(EC: 920-750-0)

Výstražné upozornenia

H225 Veľmi horľavá kvapalina a pary.

H304 Môže byť smrteľný po požití a vniknutí do dýchacích ciest.

H336 Môže spôsobiť ospalosť alebo závraty.

H411 Toxický pre vodné organizmy, s dlhodobými účinkami.

Bezpečnostné upozornenia

P101 Ak je potrebná lekárska pomoc, majte k dispozícii obal alebo etiketu výrobku.

P102 Uchovávajte mimo dosahu detí.

P210 Uchovávajte mimo dosahu tepla, horúcich povrchov, iskier, otvoreného ohňa a iných zdrojov

zapálenia. Nefajčite.

P233 Nádobu uchovávajte tesne uzavretú.

P240 Uzemnite a upevnite nádobu a plniace zariadenie.

P241 Používajte elektrické/ventilačné/osvetľovacie zariadenie do výbušného prostredia.

P242 Používajte neiskriace prístroje.

P261 Zabráňte vdychovaniu hmly/pár/aerosólov. P273 Zabráňte uvoľneniu do životného prostredia.

P280 Noste ochranné rukavice/ochranný odev/ochranné okuliare.

P301+P310 PO POŽITÍ: Okamžite volajte lekára.

P303+P361+P353 PRI KONTAKTE S POKOŽKOU (alebo vlasmi): Vyzlečte všetky kontaminované časti odevu.

Pokožku ihneď opláchnite vodou.

P304+P340 PO VDÝCHNUTÍ: Presuňte osobu na čerstvý vzduch a umožnite jej pohodlne dýchať.
P312 Pri zdravotných problémoch volajte TOXIKOLOGICKÉ INFORMAČNÉ CENTRUM/lekára.

P331 Nevyvolávaite zvracanie.

P370+P378 V prípade požiaru: Na hasenie použite práškový hasiaci prístroj/piesok/oxid uhličitý.

P391 Zozbierajte uniknutý produkt.

P403+P233 Uchovávajte na dobre vetranom mieste. Nádobu uchovávajte tesne uzavretú.

P403+P235 Uchovávajte na dobre vetranom mieste. Uchovávajte v chlade.

P405 Uchovávajte uzamknuté.

P501 Zneškodnite obsah/nádobu odovzdaním osobe oprávnenej pre nakladanie s odpadmi alebo

vrátením dodávateľovi.

Doplňujúce informácie

EUH066 Opakovaná expozícia môže spôsobiť vysušenie alebo popraskanie pokožky.

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Hustota 0,710 - 0,780 g/cm³ pri 15 °C

Hraničná hodnota VOC kat. B (a): 850 g/l Požiadavky na uzávery odolné proti otvoreniu deťmi a hmatateľ né výstrahy

Obal musí byť opatrený hmatateľnou výstrahou pre nevidomých. Obal musí byť opatrený uzáverom odolným proti otvoreniu deťmi.

2.3. Iná nebezpečnosť

Látka nemá vlastnosti vyvolávajúce narušenie endokrinnej činnosti v súlade s kritériami stanovenými v nariadení Komisie v prenesenej právomoci (EÚ) 2017/2100 alebo v nariadení Komisie (EÚ) 2018/605. Látka nesplňuje kritéria pre látky PBT alebo vPvB v súlade s prílohou XIII, nariadenia (ES) č. 1907/2006 v znení zmien a doplnení.

ODDIEL 3: Zloženie/informácie o zložkách

3.1. Látky

Chemická charakteristika

Nižšie uvedená látka.

Identifikačné čísla	Názov látky	Obsah v % hmotnosti	Klasifikácia podľa nariadenia (ES) č. 1272/2008	Pozn.
	hlavná zložka látky Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics		Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411	1

Poznámky

1 Látky neznámeho alebo variabilného zloženia, produkty komplexných reakcií alebo biologické materiály - UVCB.

Plný text všetkých klasifikácií a H-viet je uvedený v oddieli 16.

ODDIEL 4: Opatrenia prvej pomoci

4.1. Opis opatrení prvej pomoci

Nevykonávajte umelé dýchanie bez vlastnej ochrany (napr. rúška). Dbajte na vlastnú bezpečnosť. Ak sa prejavia zdravotné ťažkosti alebo v prípade pochybností, upovedomte lekára a poskytnite mu informácie z tejto karty bezpečnostných údajov. Pri bezvedomí umiestnite postihnutú osobu do stabilizovanej polohy naboku s mierne zaklonenou hlavou a dbajte o priechodnosť dýchacích ciest, nikdy nevyvolávajte vracanie. Ak vracia postihnutý sám, dbajte na to, aby nedošlo k vdýchnutiu zvratkov. Pri stavoch ohrozujúcich život najprv vykonávajte resuscitáciu postihnutej osoby a zaistite lekársku pomoc. Zástava dychu - okamžite vykonávajte umelé dýchanie. Zástava srdca - okamžite vykonávajte nepriamu masáž srdca.

Pri vdýchnutí

Dbajte na vlastnú bezpečnosť, nenechajte postihnutého chodiť! Ihneď prerušte expozíciu, dopravte postihnutú osobu na čerstvý vzduch. Pozor na kontaminovaný odev. Podľa situácie volajte záchrannú službu a zaistite lekárske ošetrenie vzhľadom k častej nutnosti ďalšieho sledovania po dobu najmenej 24 hodín.

Pri kontakte s pokožkou

Zoblečte postriekaný odev. Umyte postihnuté miesto veľkým množstvom pokiaľ možno vlažnej vody. Ak nedošlo k poraneniu pokožky, je vhodné použiť aj mydlo, mydlový roztok alebo šampón. Zaistite lekárske ošetrenie, ak pretrváva podráždenie pokožky. Pokožku ihneď opláchnite vodou alebo sprchou.

Po zasiahnutí očí

Ihneď vyplachujte oči prúdom tečúcej vody, roztvorte viečka (aj násilím); ak má postihnutá osoba kontaktné šošovky, ihneď ich vyberte. Vyplachujte najmenej 10 minút.

Po požití

Ak vracia postihnutá osoba, dbajte na to, aby nevdýchla zvratky (pretože pri vdýchnutí týchto kvapalín do dýchacích ciest aj v nepatrnom množstve je nebezpečenstvo poškodenia pľúc). Zaistite lekárske ošetrenie vzhľadom k častej nutnosti ďalšieho sledovania po dobu najmenej 24 hodín. Originálny obal s etiketou, prípadne kartu bezpečnostných údajov danej látky zoberte so sebou.

4.2. Najdôležitejšie príznaky a účinky, akútne aj oneskorené

Pri vdýchnutí

Kašeľ, bolesti hlavy. Môže spôsobiť ospalosť alebo závraty.

Pri kontakte s pokožkou

Neočakávajú sa.

Po zasiahnutí očí

Neočakávajú sa.

Po požití

Podráždenie, nevoľnosť.

4.3. Údaj o akejkoľvek potrebe okamžitej lekárskej starostlivosti a osobitného ošetrenia

Liečba symptomatická.

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ODDIEL 5: Protipožiarne opatrenia

5.1. Hasiace prostriedky

Vhodné hasiace prostriedky

Pena odolná alkoholu, oxid uhličitý, prášok, voda - striekajúci prúd, vodná hmla.

Nevhodné hasiace prostriedky

Voda - plný prúd.

5.2. Osobitné druhy nebezpečnosti vyplývajúce z látky alebo zo zmesi

Pri požiari môže dochádzať k vzniku oxidu uhoľnatého a uhličitého a ďalších toxických plynov. Vdychovanie nebezpečných rozkladných (pyrolýznych) produktov môže spôsobiť vážne poškodenie zdravia.

5.3. Pokyny pre požiarnikov

Samostatný dýchací prístroj (SDP) s chemickým ochranným oblekom len v prípade možného osobného (tesného) kontaktu. Použite izolačný dýchací prístroj a celotelový ochranný oblek. Uzavreté nádoby s produktom v blízkosti požiaru chlaďte vodou. Kontaminované hasivo nenechajte uniknúť do kanalizácie, povrchových a spodných vôd.

ODDIEL 6: Opatrenia pri náhodnom uvoľnení

6.1. Osobné bezpečnostné opatrenia, ochranné vybavenie a núdzové postupy

Zaistite dostatočné vetranie. Látka je horľavá. Odstráňte všetky zdroje zapálenia. Používajte osobné ochranné pracovné prostriedky. Postupujte podľa pokynov, obsiahnutých v oddieloch 7 a 8. Nevdychujte hmlu/pary/aerosóly.

6.2. Bezpečnostné opatrenia pre životné prostredie

Nepripustite vniknutie do kanalizácie. Zabráňte kontaminácii pôdy a úniku do povrchových alebo spodných vôd.

6.3. Metódy a materiál na zabránenie šíreniu a vyčistenie

Rozliaty produkt pokryte vhodným (nehorľavým) absorbujúcim materiálom (piesok, kremelina, zemina a iné vhodné absorpčné materiály), zhromaždite v dobre uzavretých nádobách a odstráňte podľa oddielu 13. Pri úniku veľkého množstva produktu informujte hasičov a iné kompetentné orgány. Po odstránení produktu umyte kontaminované miesto veľkým množstvom vody. Nepoužívajte rozpúšťadlá.

6.4. Odkaz na iné oddiely

Pozri oddiel 7., 8. a 13.

ODDIEL 7: Zaobchádzanie a skladovanie

7.1. Bezpečnostné opatrenia na bezpečné zaobchádzanie

Zabráňte tvorbe plynov a pár v zápalných alebo výbušných koncentráciách. Produkt používajte iba na miestach, kde neprichádza do styku s otvoreným ohňom a inými zápalnými zdrojmi. Používajte neiskriace nástroje. Odporúča sa používať antistatický odev aj obuv. Nevdychujte hmlu/pary/aerosóly. Nefajčite. Používajte iba na voľnom priestranstve alebo v dobre vetranom priestore. Používajte osobné ochranné pracovné prostriedky podľa oddielu 8. Dbajte na platné právne predpisy o bezpečnosti a ochrane zdravia. Uzemnite a upevnite nádobu a plniace zariadenie. Používajte elektrické/ventilačné/osvetľovacie zariadenie do výbušného prostredia. Vykonajte opatrenia na zabránenie výbojom statickej elektriny. Zabráňte uvoľneniu do životného prostredia.

7.2. Podmienky na bezpečné skladovanie vrátane akejkoľvek nekompatibility

Skladujte v tesne uzavretých obaloch na chladných, suchých a dobre vetraných miestach na to určených. Nevystavujte slnku. Uchovávajte uzamknuté. Nádobu uchovávajte tesne uzavretú. Uchovávajte v chlade.

Skladovacia teplota min 5 °C, max 35 °C

Špecifické požiadavky alebo pravidlá vzťahujúce sa k látke/zmesi

Pary rozpúšťadiel sú ťažšie ako vzduch a hromadia sa najmä u podlahy, kde v zmesi so vzduchom môžu vytvárať výbušnú zmes.

7.3. Špecifické konečné použitie, resp. použitia

neuvedené

ODDIEL 8: Kontroly expozície/osobná ochrana

8.1. Kontrolné parametre

DNEL

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Pracovníci / spotrebitelia	Cesta expozície	Hodnota	Účinok	Stanovenie hodnoty	Zdroj
Pracovníci	Dermálne	773 mg/kg/24h	Chronické účinky miestne		Dodávateľ
Pracovníci	Inhalačne	2035 mg/m ³	Chronické účinky miestne		Dodávateľ
Spotrebitelia	Orálne	699 mg/kg/24h	Chronické účinky miestne		Dodávateľ



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Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Pracovníci / spotrebitelia	Cesta expozície	Hodnota	Účinok	Stanovenie hodnoty	Zdroj
Spotrebitelia	Dermálne	699 mg/kg/24h	Chronické účinky miestne		Dodávateľ
Spotrebitelia	Inhalačne	608 mg/m ³	Chronické účinky miestne		Dodávateľ

8.2. Kontroly expozície

Dbajte na obvyklé opatrenia na ochranu zdravia pri práci a najmä na dobré vetranie. To sa dá dosiahnuť iba miestnym odsávaním alebo účinným celkovým vetraním. Ak sa tak nedá dodržať NPEL, musí sa použiť vhodná ochrana dýchacích ústrojov. Pri práci nejedzte, nepite a nefajčite. Po práci a pred prestávkou na jedlo a oddych si dôkladne umyte ruky vodou a mydlom.

Veľmi horľavá kvapalina a pary.

Ochrana očí/tváre

Nie je nutná.

Ochrana kože

Ochrana rúk: Ochranné rukavice odolné výrobku. Znečistenú pokožku dôkladne umyte.

Ochrana dýchacích ciest

Maska s filtrom proti organickým parám v zle vetrateľnom prostredí.

Tepelná nebezpečnosť

Neuvedené.

Kontroly environmentálnej expozície

Dbajte na obvyklé opatrenia na ochranu životného prostredia, pozri bod 6.2. Zozbierajte uniknutý produkt.

Ďalšie údaie

Prílohou karty bezpečnostných údajov je scenár expozície.

ODDIEL 9: Fyzikálne a chemické vlastnosti

9.1. Informácie o základných fyzikálnych a chemických vlastnostiach

Skupenstvo kvapalné
Farba bezfarebný
Zápach charakteristický
Teplota topenia/tuhnutia <-20 °C
Teplota varu alebo počiatočná teplota varu a rozmedzie teploty

varu

Horľavosť

Dolná a horná medza výbušnosti
dolný 1,4 %
horný 7,6 %
Teplota vzplanutia <0 °C
Teplota samovznietenia >200 °C

Teplota rozkladu údaj nie je k dispozícii
Hodnota pH údaj nie je k dispozícii
Kinematická viskozita <0,37 mm²/s pri 40 °C
Rozpustnosť vo vode údaj nie je k dispozícii
Rozpustnosť v tukoch údaj nie je k dispozícii
Rozdeľovacia konštanta (hodnota log) údaj nie je k dispozícii

Rozdeľovacia konštanta (hodnota log) údaj nie je k dispozícii Tlak pár 10 - 20 kPa pri 40 °C

Hustota a/alebo relatívna hustota

hustota 0,710 - 0,780 g/cm³ pri 15 °C Relatívna hustota pár údaj nie je k dispozícii

Vlastnosti častíc údaj nie je k dispozícii

Forma kvapalina

9.2. Iné informácie

Rýchlosť odparovania údaj nie je k dispozícii Oxidačné vlastnosti Nie je oxidujúca.

Hustota pár >3

Hraničná hodnota VOC kat. B (a): 850 g/l

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ODDIEL 10: Stabilita a reaktivita

10.1. Reaktivita

Látka je veľmi horľavá.

10.2. Chemická stabilita

Pri normálnych podmienkach je produkt stabilný.

10.3. Možnosť nebezpečných reakcií

Nie sú známe.

10.4. Podmienky, ktorým sa treba vyhnúť

Pri normálnom spôsobe použitia je produkt stabilný, k rozkladu nedochádza. Chráňte pred plameňmi, iskrami, prehriatím a pred mrazom.

10.5. Nekompatibilné materiály

Chráňte pred silnými kyselinami, zásadami a oxidačnými činidlami.

10.6. Nebezpečné produkty rozkladu

Pri normálnom spôsobe použitia nevznikajú. Pri vysokých teplotách a pri požiari vznikajú nebezpečné produkty, ako napr. oxid uhoľnatý a oxid uhličitý.

ODDIEL 11: Toxikologické informácie

11.1. Informácie o triedach nebezpečnosti vymedzených v nariadení (ES) č. 1272/2008

Pre látku nie sú žiadne toxikologické údaje k dispozícii.

Akútna toxicita

Na základe dostupných dôkazov nie sú kritéria pre klasifikáciu splnené.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Cesta expozície	Parameter	Hodnota	Doba expozície	Druh	Pohlavie	Zdroj
Orálne	LD50	>5840 mg/kg		Potkan		Dodávateľ
Inhalačne	LD50	>23300 mg/m ³		Potkan		Dodávateľ
Dermálne	LD50	>2920 mg/kg		Králik		Dodávateľ

Poleptanie kože / podráždenie kože

Na základe dostupných údajov nie sú kritéria pre klasifikáciu splnené.

Vážne poškodenie očí / podráždenie očí

Na základe dostupných údajov nie sú kritéria pre klasifikáciu splnené.

Respiračná alebo kožná senzibilizácia

Na základe dostupných údajov nie sú kritéria pre klasifikáciu splnené.

Mutagenita zárodočných buniek

Na základe dostupných údajov nie sú kritéria pre klasifikáciu splnené.

Karcinogenita

Na základe dostupných údajov nie sú kritéria pre klasifikáciu splnené.

Reprodukčná toxicita

Na základe dostupných údajov nie sú kritéria pre klasifikáciu splnené.

Toxicita pre špecifický cieľový orgán (STOT) - jednorazová expozícia

Môže spôsobiť ospalosť alebo závraty.

Toxicita pre špecifický cieľový orgán (STOT) - opakovaná expozícia

Na základe dostupných údajov nie sú kritéria pre klasifikáciu splnené.

Aspiračná nebezpečnosť

Môže byť smrteľný po požití a vniknutí do dýchacích ciest.

11.2. Informácie o inej nebezpečnosti

Látka nemá vlastnosti vyvolávajúce narušenie endokrinnej činnosti v súlade s kritériami stanovenými v nariadení Komisie v prenesenej právomoci (EÚ) 2017/2100 alebo v nariadení Komisie (EÚ) 2018/605.

ODDIEL 12: Ekologické informácie

12.1. Toxicita

elaslik

podľa nariadenia Komisie (EÚ) 2020/878 z 18. júna 2020, ktorým sa mení príloha II k nariadeniu Európskeho parlamentu a Rady (ES) č. 1907/2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemikálií

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Akútna toxicita

Toxický pre vodné organizmy, s dlhodobými účinkami.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Parameter	Hodnota	Doba expozície	Druh	Prostredie	Zdroj
EL50	4,5 mg/l	48 hodín	Dafnie (Daphnia magna)	Sladká voda	Dodávateľ
EL50	10 mg/l	72 hodín	Riasy (Pseudokirchneriella subcapitata)	Sladká voda	Dodávateľ
NOEC	0,17 mg/l	21 dní	Dafnie (Daphnia magna)	Sladká voda	Dodávateľ
LL50	3,0 mg/l	96 hodín	Ryby (Oncorhynchus mykiss)	Sladká voda	Dodávateľ
NOEL	0,574 mg/l	28 dní	Ryby (Oncorhynchus mykiss)	Sladká voda	Dodávateľ

12.2. Perzistencia a degradovateľnosť

Biologická odbúrateľnosť

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Parameter	Hodnota	Doba expozície	Prostredie	Výsledok	Zdroj
	>74 %	28 dní		Biologicky odbúrateľný	Dodávateľ

neuvedené

12.3. Bioakumulačný potenciál

Neuvedené.

12.4. Mobilita v pôde

Neuvedené.

12.5. Výsledky posúdenia PBT a vPvB

Produkt neobsahuje látky, ktoré spĺňajú kritériá pre látky PBT alebo vPvB v súlade s prílohou XIII, nariadenie (ES) č. 1907/2006 (REACH) v platnom znení.

12.6. Vlastnosti endokrinných disruptorov (rozvracačov)

Táto látka nemá vlastnosti narúšajúce endokrinný systém, pokiaľ ide o necieľové, keďže nespĺňa kritériá stanovené v oddiele B nariadenia (EÚ) 2017/2100. Látka nemá vlastnosti vyvolávajúce narušenie endokrinnej činnosti v súlade s kritériami stanovenými v nariadení Komisie v prenesenej právomoci (EÚ) 2017/2100 alebo v nariadení Komisie (EÚ) 2018/605.

12.7. Iné nepriaznivé účinky

Neuvedené.

ODDIEL 13: Opatrenia pri zneškodňovaní

13.1. Metódy spracovania odpadu

Nebezpečenstvo kontaminácie životného prostredia, postupujte podľa Zákona NR SR č. 79/2015 Z.z. o odpadoch, v znení neskorších predpisov a podľa vykonávacích predpisov o zneškodňovaní odpadov. Postupujte podľa platných predpisov o zneškodňovaní odpadov. Nepoužitý výrobok a znečistený obal uložte do označených nádob na zber odpadu a predajte na odstránenie oprávnenej osobe na odstránenie odpadu (špecializovanej firme), ktorá má oprávnenie na túto činnosť. Nepoužitý výrobok nevylievajte do kanalizácie. Nesmie sa odstraňovať spoločne s komunálnymi odpadmi. Prázdne obaly je možné energeticky využiť v spaľovni odpadov alebo ukladať na skládke príslušného zaradenia. Dokonale vyčistené obaly je možné odovzdať na recykláciu.

Právne predpisy o odpadoch

Zákon č. 430/2021 Z.z., ktorým sa mení a dopĺňa zákon č. 79/2015 Z. z. o odpadoch a o zmene a doplnení niektorých zákonov v znení neskorších predpisov Vyhláška MŽP SR č. 371/2015 Z. z., ktorou sa vykonávajú niektoré ustanovenia zákona o odpadoch. Vyhláška MŽP SR č.365/2015 Z.z. ktorou sa ustanovuje Katalóg odpadov.

Kód druhu odpadu

07 01 04 iné organické rozpúšťadlá, premývacie kvapaliny a matečné lúhy *

Kód druhu odpadu pre obal

15 01 10 obaly obsahujúce zvyšky nebezpečných látok alebo kontaminované nebezpečnými látkami *

(*) - nebezpečný odpad podľa smernice 2008/98/ES o nebezpečných odpadoch

ODDIEL 14: Informácie o doprave

14.1. Číslo OSN alebo identifikačné číslo

UN 1268

14.2. Správne expedičné označenie OSN

ROPNÉ DESTILÁTY, I. N.

elaslik

podľa nariadenia Komisie (EÚ) 2020/878 z 18. júna 2020, ktorým sa mení príloha II k nariadeniu Európskeho parlamentu a Rady (ES) č. 1907/2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemikálií

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14.3. Trieda, resp. triedy nebezpečnosti pre dopravu

3 Horľavé kvapalné látky

14.4. Obalová skupina

II - látky predstavujúce stredné nebezpečenstvo

14.5. Nebezpečnosť pre životné prostredie

nie je relevantné

14.6. Osobitné bezpečnostné opatrenia pre užívateľa

Odkaz v oddieloch 4 až 8.

14.7. Námorná preprava hromadného nákladu podľa nástrojov IMO

nie je relevantné

Doplňujúce informácie

Identifikačné číslo nebezpečnosti

UN číslo Klasifikačný kód

Bezpečnostné značky 3+ohrozujúce životné prostredie



33

1268

F1



Cestná preprava - ADR

Zvláštne ustanovenie 640D, 664
Obmedzené množstvá 1 L
Vybrané množstvá E1

Obal

Obalové inštrukcie P001, IBC02, R001

Ustanovenia na zmiešané balenie MP19

Prenosné cisterny a kontajnery na prepravu vo voľne loženom stave

Pokyny T7

Zvláštne ustanovenie TP1, TP8, TP28

ADR cisterny

Kód cisternyLGBFVozidlo na prepravu v cisternáchFLDopravná kategória2Kód obmedzujúci tunel(D/E)

Zvláštne ustanovenie pre

Prevádzka S2, S20

Železničná preprava - RID

Zvláštne ustanovenie 640D, 664

Obal

Obalové inštrukcie P001, IBC02, R001

Ustanovenia na zmiešané balenie MP19

Prenosné cisterny a kontajnery na prepravu vo voľne loženom stave

Pokyny T7

Zvláštne ustanovenie TP1, TP8, TP28

RID nádrže

Kód cisterny LGBF Dopravná kategória 0

elaslik

podľa nariadenia Komisie (EÚ) 2020/878 z 18. júna 2020, ktorým sa mení príloha II k nariadeniu Európskeho parlamentu a Rady (ES) č. 1907/2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemikálií

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		,		

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Letecká preprava - ICAO/IATA

Baliace inštrukcie limitované množstvo Y344
Baliace inštrukcie pasažier 355
Baliace inštrukcie kargo 366

Námorná preprava - IMDG

EmS (pohotovostný plán) F-E, S-E MFAG 310

ODDIEL 15: Regulačné informácie

15.1. Nariadenia/právne predpisy špecifické pre látku alebo zmes v oblasti bezpečnosti, zdravia a životného prostredia

Zákon č.194/2018 Z.z., ktorým sa mení a dopĺňa zákon č. 137/2010 Z. z. o ovzduší v znení neskorších predpisov a ktorým sa menia a dopĺňajú niektoré zákony. Zákon č. 355 / 2007 Z. z. Zákon o ochrane, podpore a rozvoji verejného zdravia a o zmene a doplnení niektorých zákonov. Nariadenie Európskeho parlamentu a Rady (ES) č. 1907/2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemikálií (REACH) a o zriadení Európskej chemickej agentúry, o zmene a doplnení smernice 1999/45/ES a o zrušení nariadenia Rady (EHS) č. 793/93 a nariadenia Komisie (ES) č. 1488/94, smernice Rady 76/769/EHS a smerníc Komisie 91/155/EHS, 93/67/EHS, 93/105/ES a 2000/21/ES v platnom znení. Nariadenie Európskeho parlamentu a Rady (ES) č. 1272/2008 o klasifikácii, označovaní a balení látok a zmesí, o zmene, doplnení a zrušení smerníc 67/548/EHS a 1999/45/ES a o zmene a doplnení nariadenia (ES) č. 1907/2006 v platnom znení. Zákon NR SR č. 67/2010 Z.z. o podmienkach uvedenia chemických látok a chemických zmesí na trh a o zmene a doplnení niektorých zákonov (chemický zákon). Vyhláška MŽP SR 98/2021 Z. z., ktorou sa mení a dopĺňa vyhláška Ministerstva životného prostredia Slovenskej republiky č. 410/2012 Z. z., ktorou sa vykonávajú niektoré ustanovenia zákona o ovzduší v znení neskorších predpisov. Zákon NR SR č. 79/2015 Z.z. o odpadoch a o zmene a doplnení niektorých zákonov. Vyhláška MŽP SR 127/2011 Z.z., ktorou sa ustanovuje zoznam regulovaných výrobkov, označovanie ich obalov a požiadavky na obmedzenie emisií prchavých organických zlúčenín pri používaní organických rozpúšťadiel v regulovaných výrobkoch. Zákon č.478/2002 Z.z. o ochrane ovzdušía a ktorým sa dopĺňa zákon č. 401/1998 Z. z. o opplatkoch za znečisťovanie ovzdušia v znení neskorších predpisov (zákon o ovzduší).

15.2. Hodnotenie chemickej bezpečnosti

Áno.

ODDIEL 16: Iné informácie

Zoznam výstražných upozornení použitých v karte bezpečnostných údajov

H225 Veľmi horľavá kvapalina a pary.

H304 Môže byť smrteľný po požití a vniknutí do dýchacích ciest.

H336 Môže spôsobiť ospalosť alebo závraty.

H411 Toxický pre vodné organizmy, s dlhodobými účinkami.

Zoznam bezpečnostných upozornení použitých v karte bezpečnostných údajov

P101 Ak je potrebná lekárska pomoc, majte k dispozícii obal alebo etiketu výrobku.

P102 Uchovávajte mimo dosahu detí.

P210 Uchovávajte mimo dosahu tepla, horúcich povrchov, iskier, otvoreného ohňa a iných zdrojov

zapálenia. Nefajčite.

P233 Nádobu uchovávajte tesne uzavretú.

P240 Uzemnite a upevnite nádobu a plniace zariadenie.

P241 Používajte elektrické/ventilačné/osvetľovacie zariadenie do výbušného prostredia.

P242 Používaite neiskriace prístroje.

P261 Zabráňte vdychovaniu hmly/pár/aerosólov.
P273 Zabráňte uvoľneniu do životného prostredia.

P280 Noste ochranné rukavice/ochranný odev/ochranné okuliare.

P301+P310 PO POŽITÍ: Okamžite volajte lekára.

P303+P361+P353 PRI KONTAKTE S POKOŽKOU (alebo vlasmi): Vyzlečte všetky kontaminované časti odevu.

Pokožku ihneď opláchnite vodou.

P304+P340 PO VDÝCHNUTÍ: Presuňte osobu na čerstvý vzduch a umožnite jej pohodlne dýchať.
P312 Pri zdravotných problémoch volajte TOXIKOLOGICKÉ INFORMAČNÉ CENTRUM/lekára.

P331 Nevyvolávajte zvracanie.

P370+P378 V prípade požiaru: Na hasenie použite práškový hasiaci prístroj/piesok/oxid uhličitý.

P391 Zozbierajte uniknutý produkt.

P403+P233 Uchovávajte na dobre vetranom mieste. Nádobu uchovávajte tesne uzavretú.

P403+P235 Uchovávajte na dobre vetranom mieste. Uchovávajte v chlade.

P405 Uchovávajte uzamknuté.



podľa nariadenia Komisie (EÚ) 2020/878 z 18. júna 2020, ktorým sa mení príloha II k nariadeniu Európskeho parlamentu a Rady (ES) č. 1907/2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemikálií

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P501 Zneškodnite obsah/nádobu odovzdaním osobe oprávnenej pre nakladanie s odpadmi alebo

vrátením dodávateľovi.

Zoznam doplnkových výstražných upozornení použitých v karte bezpečnostných údajov

EUH066 Opakovaná expozícia môže spôsobit' vysušenie alebo popraskanie pokožky.

Ďalšie informácie dôležité z hľadiska bezpečnosti a ochrany zdravia človeka

Výrobok nesmie byť - bez zvláštneho súhlasu výrobcu/dovozcu - používaný na iný účel ako je uvedené v oddieli 1. Užívateľ je zodpovedný za dodržiavanie všetkých súvisiacich predpisov na ochranu zdravia.

Legenda k skratkám a akronymom použitým v karte bezpečnostných údajov

ADR Európska dohoda o medzinárodnej cestnej preprave nebezpečných vecí

BCF Biokoncentračný faktor
CAS Chemical Abstracts Service

CLP Nariadenie (ES) č. 1272/2008 o klasifikácii, označovaní a balení látok a zmesí

EC Číslo ES je číselný identifikátor látok na zozname ES

EINECS Európsky zoznam existujúcich obchodovaných chemických látok

EL50 Účinná úroveň pre 50 % testovaných organizmov

EmS Pohotovostný plán EÚ Európska únia

EuPCS Európsky systém kategorizácie výrobkov
IATA Medzinárodná asociácia leteckých dopravcov

IBC Medzinárodný predpis pre stavbu a vybavenie lodí hromadne prepravujúce nebezpečné

chemikálie

ICAO Medzinárodná organizácia pre civilné letectvo

IMDG Medzinárodná námorná preprava nebezpečného tovaru

IMO Medzinárodná námorná organizácia

INCI Medzinárodné názvoslovie kozmetických zložiek
ISO Medzinárodná organizácia pre normalizáciu
IUPAC Medzinárodná únia pre čistú a aplikovanú chémiu

LD50 Smrteľná dávka látky, pri ktorej možno očakávať, že spôsobí smrť 50% populácie

LL50 Smrteľná zaťaženie pre 50 % testovaných organizmov

log Kow Oktanol-voda rozdeľovací koeficient NDS Najvyššia prípustná koncentrácia

NDSCh Najvyššia prípustná koncentrácia - krátkodobá
NOEC Koncentrácia bez pozorovaného účinku
NOEL Hladina bez pozorovaného účinku
NPEL Najvyšší prípustný expozičný limit
OEL Expozičné limity na pracovisku

PBT Perzistentný, bioakumulatívny a toxický ppm Počet častíc na milión (milióntina)

REACH Registrácia, hodnotenie, autorizácia a obmedzovanie chemických látok

RID Dohoda o preprave nebezpečného tovaru po železnici

UN Štvormiestne identifikačné číslo látky alebo predmetu prebrané zo Vzorov predpisov OSN UVCB Látka neznámeho alebo variabilného zloženia, komplexné reakčné produkt alebo biologický

materiál

VOC Prchavé organické zlúčeniny

vPvB Veľmi perzistentný a veľmi bioakumulatívny

Aquatic Chronic Nebezpečnosť pre vodné prostredie (chronická)

Asp. Tox. Aspiračná nebezpečnosť Flam. Liq. Horľavá kvapalina

STOT SE Toxicita pre špecifický cieľový orgán – jednorazová expozícia

Pokyny pre školenie

Zoznámiť pracovníkov s odporúčaným spôsobom použitia, povinnými ochrannými prostriedkami, prvou pomocou a zakázanými manipuláciami s produktom.

Odporúčané obmedzenie použitia

neuvedené

Informácie o zdrojoch údajov použitých pri zostavovaní karty bezpečnostných údajov



podľa nariadenia Komisie (EÚ) 2020/878 z 18. júna 2020, ktorým sa mení príloha II k nariadeniu Európskeho parlamentu a Rady (ES) č. 1907/2006 o registrácii, hodnotení, autorizácii a obmedzovaní chemikálií

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Nariadenie Európskeho parlamentu a Rady (ES) č. 1907/2006 (REACH) v platnom znení. Nariadenie Európskeho parlamentu a Rady (ES) č. 1272/2008 v platnom znení. Údaje od výrobcu látky / zmesi, ak sú k dispozícii - údaje z registračnej dokumentácie.

Vykonané zmeny (ktoré informácie boli pridané, vypustené alebo upravené)

Verzia 3.0 nahradzuje verziu KBÚ z 19.04.2018. Zmeny boli vykonané v oddieloch 1,2,3,15 a 16.

Ďalšie údaje

Postup klasifikácie - metóda výpočtu.

Prehlásenie

Karta bezpečnostných údajov obsahuje údaje na zaistenie bezpečnosti a ochrany zdravia pri práci a ochrany životného prostredia. Uvedené údaje zodpovedajú súčasnému stavu vedomostí a skúseností a sú v súlade s platnými právnymi predpismi. Nemôžu byť považované za záruku vhodnosti a použiteľnosti výrobku pre konkrétnu aplikáciu.



ORLESOL E70/120

Scenario 1: Manufacture of Substance – Industrial

Scenario 1. Manufact		cc maastrar		
Section 1 Exposure Scen	nario Title			
Title				
Manufacture of Substance	<u> – Industrial GES</u>	S 1.1		
Use Descriptor				
Sector(s) of Use		3		
Process Categories		1, 2, 3, 4, 8a, 8b, 15		
Environmental Release Ca	ategories	1, 4		
Specific Environmental R	elease Category	ESVOC 1.1.v1		
Processes, tasks, activitie	es covered			
		ntermediate or process chemical or extraction		
agent. Includes recycling/	recovery, materia	ll transfers, storage, sampling, associated		
laboratory activities, main	tenance and loadi	ng (including marine vessel/barge, road/rail car		
and bulk container).				
Assessment Method				
See Section 3.				
Section 2 Operational co	onditions and ris	k management measures		
Section 2.1 Control of w				
Product characteristics				
	Liquid vanour n	ressure 0.5 - 10kPa at STP [OC4]		
Concentration of		ge substance in the product up to 100% (unless		
substance in product	stated differently) [G13]			
Amounts used	No Limit) [013]		
Frequency and duration of use	Covers daily exp	osures up to 8 hours (unless stated) [G2]		
Other Operational	Assumes use at n	ot > 20oC above ambient [G15]		
Conditions affecting				
worker exposure				
	Assumes a good	basic standard of occupational hygiene has been		
	implemented [G	1]		
Contributing Scenarios	Specific Risk M	anagement Measures and Operating Conditions		
	(only required co	ontrols to demonstrate safe use listed)		
General exposures	No specific meas	sures identified[EI18]		
(closed systems) [CS15]	1			
PROC1				
General exposures	No specific meas	sures identified[EI18]		
(closed systems) [CS15]	ro specific incasures identifica[Eff6]			
PROC2				
General exposures	No specific measures identified[EI18]			
(closed systems) [CS15]	specific incasures identificu[E110]			
PROC3				
General exposures (open	No specific meas	sures identified[EI18]		
systems) [CS16] PROC4				
Process sampling [CS2]	No specific meas	No specific measures identified[EI18]		
PROC8b	specific meas			
Laboratory activities	No specific meas	sures identified[EI18]		
Laboratory activities	pro specific meas	ares rachanea[E116]		



	_			
[CS36] PROC15				
Bulk transfers	No specific measures identified[EI18]			
[CS14](open systems)				
[CS108] PROC8b				
Bulk transfers				
[CS14](closed systems)				
[CS107] PROC8b				
Equipment cleaning and	No specific measures identified[EI18]			
maintenance [CS39]				
PROC8a				
Material storage [CS67]	No specific measures identified[EI18]			
PROC1	promis measures rachameter[==10]			
Material storage [CS67]	No specific measures identified[EI18]			
PROC2	[2170]			
Section 2.2 Control of e	nvironmental exposure			
Product characteristics	nyn omnenun exposure			
	CB [PrC3]. Predominantly hydrophobic	[PrC4a]		
Amounts used	CD [11CJ]. 11Cdommandy nydrophobic	[1 1 C 7 a].		
	and in ragion	0.1		
Fraction of EU tonnage us				
Regional use tonnage (tor		4500		
Fraction of Regional tonn	·	1		
Annual site tonnage (tonn		4500		
Maximum daily site tonna		45000		
Frequency and duration				
Continuous release [FD2]				
Emission days (days/year)	100		
Environmental factors n	ot influenced by risk management			
Local freshwater dilution	factor	10		
Local marine water dilution	on factor	100		
Other given operational	conditions affecting environmental exp	osure		
	<u> </u>	-		
Release fraction to air fro	m process (initial release prior to RMM)	0.05		
	water from process (initial release prior to			
RMM)	water from process (finitial release prior to	0.00003		
	om process (initial release prior to RMM)	0.0001		
	d measures at process level (source) to p			
1 .	cross sites thus conservative process relea			
	ons and measures to reduce or limit dis	charges, air emissions		
and releases to soil	' 1' 1 5 1 4 6 1'	/ [TCD 11 1		
	exposure is driven by Freshwater Sedime	-		
_	ssolved substance to or recover from onsi	te wastewater [TCK14].		
No wastewater treatment required [TCR6].				
Treat air emission to provide a typical removal efficiency of (%) 90				
-	prior to receiving water discharge) to	0		
provide the required remo				
	e sewage treatment plant, provide the	0		
required onsite wastewate	er removal efficiency of \geq (%)			
	to prevent/limit release from site			
	-			



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Conditions and measures related to municipal sewage treatment plant		
conditions and measures related to mamerpar sewage treatment	ient plant	
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Total efficiency of removal from wastewater after onsite and	96.2	
offsite (domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (M _{Safe}) based on release	4300000	
following total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m ³ /d)	10000	

Conditions and measures related to external treatment of waste for disposal

During manufacturing no waste of the substance is generated [ETW4].

Conditions and measures related to external recovery of waste

During manufacturing no waste of the substance is generated [ERW2].

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 2: Distribution of Substance – Industrial

Section 1 Exposure Scenario Title	
Title	
Distribution of Substance – Industrial	GES 1A.1
Use Descriptor	
Sector(s) of Use	3
Process Categories	1, 2, 3, 4, 8a, 8b, 9, 15



Environmental Release Categor	ries	1, 2, 3, 4, 5, 6, 7	
Specific Environmental Release	e Category	ESVOC 1.1b.v1	
Processes, tasks, activities covered			
Bulk loading (including marine	vessel/barge, rail/roa	nd car and IBC loading) and repacking (including drums and	
		orage, unloading, maintenance and associated laboratory	
activities. Excludes emissions			
Assessment Method			
See Section 3.			
Section 2 Operational condit	ions and risk manag	ement measures	
Section 2.1 Control of worke			
Product characteristics			
Physical form of product	Liquid, vapour pres	ssure 0.5 - 10kPa at STP [OC4]	
Concentration of substance		e substance in the product up to 100% (unless stated	
in product	differently) [G13]	' ' '	
Amounts used	No Limit		
Frequency and duration of use	Covers daily expos	sures up to 8 hours (unless stated) [G2]	
Other Operational Conditions affecting worker exposure		ot > 20oC above ambient [G15]	
	implemented [G1]	asic standard of occupational hygiene has been	
Contributing Scenarios		gement Measures and Operating Conditions (only demonstrate safe use listed)	
General exposures (closed systems) [CS15] PROC1	No specific measures identified[EI18]		
General exposures (closed systems) [CS15] PROC2	No specific measures identified[EI18]		
General exposures (closed systems) [CS15] PROC3	No specific measures identified[El18]		
General exposures (open systems) [CS16] PROC4	No specific measures identified[EI18]		
Process sampling [CS2] PROC3	No specific measures identified[EI18]		
Laboratory activities [CS36] PROC15	No specific measures identified[EI18]		
Bulk transfers [CS14](closed systems) [CS107] PROC8b	No specific measures identified[EI18]		
Bulk transfers [CS14](open systems) [CS108] PROC8b	No specific measures identified[El18]		
Drum and small package filling [CS6] PROC9	No specific measures identified[EI18]		
Equipment cleaning and maintenance [CS39] PROC8a	No specific measures identified[EI18]		
Material storage [CS67] PROC1	No specific measures identified[EI18]		
Material storage [CS67] PROC2	No specific measures identified[EI18]		
Section 2.2 Control of enviro	nmental exposure		
Product characteristics			
Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].			
Amounts used			
Fraction of EU tonnage used in	region	0.1	
	-		



Degional use tenness (tennes/veer)	4220	
Regional use tonnage (tonnes/year) Fraction of Regional tonnage used locally	0.002	
Annual site tonnage (tonnes/year)	8.4e-1	
Maximum daily site tonnage (kg/day)	4.2e1	
Frequency and duration of use	4.261	
Continuous release [FD2].		
Emission days (days/year)	20	
Environmental factors not influenced by risk management	20	
Local freshwater dilution factor	10	
Local marine water dilution factor	100	
Other given operational conditions affecting environmental exposure	100	
other given operational conditions affecting environmental exposure		
Release fraction to air from process (initial release prior to RMM)	0.001	
Release fraction to wastewater from process (initial release prior to RMM)	0.000001	
Release fraction to soil from process (initial release prior to RMM)	0.00001	
Technical conditions and measures at process level (source) to prevent rel		
<u> </u>		
Common practices vary across sites thus conservative process release estimate Technical onsite conditions and measures to reduce or limit discharges, ai		
Technical offsite conditions and measures to reduce of finit discharges, at	r emissions and releases to son	
Risk from environmental exposure is driven by Freshwater [TCR1a]. No wastewater treatment required [TCR6].		
Treat air emission to provide a typical removal efficiency of (%)	90	
Treat onsite wastewater (prior to receiving water discharge) to provide the	0	
required removal efficiency \geq (%)		
If discharging to domestic sewage treatment plant, provide the required onsite	0	
wastewater removal efficiency of \geq (%)		
Organisation measures to prevent/limit release from site		
Conditions and measures related to municipal sewage treatment plant		
Conditions and incasures related to municipal sewage treatment plant		
Estimated substance removal from wastewater via domestic sewage treatment (%)	96.2	
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	96.2	
Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d)	620000	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000	
Conditions and measures related to external treatment of waste for dispos	sal	
External treatment and disposal of waste should comply with applicable local a [ETW3]		
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable local [ERW1]	and/or national regulations.	
Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in		
PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.		
Section 3 Exposure Estimation		
3.1. Health The ELE TOC TRA tool has been used to estimate workplace exposures unles	s otherwise indicated [CO1]	
The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21]. 3.2. Environment		
The Hydrocarbon Block Method has been used to calculate environmental exp [EE2].	osure with the Petrorisk model	
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 M	Management Measures/Operational	
Conditions outlined in Section 2 are implemented. [G22].	vianagement ivicasures/Operational	



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Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37]

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 3: Formulation & (Re)packing of Substances and Mixtures – Industrial

Scenario 3. Formulai	non & (Ke)paci	king of Substances and Mixtures – industri	
Section 1 Exposure Sce	nario Title		
Title			
Formulation & (Re)packi	ng of Substances	and Mixtures – Industrial GES 2.1	
Use Descriptor			
Sector(s) of Use 10		10	
· · · · · · · · · · · · · · · · · · ·		1, 2, 3, 4, 5, 8a, 8b, 9, 14, 15	
Environmental Release C	ategories	2	
Specific Environmental F	Release Category	ESVOC 2.2.v1	
Processes, tasks, activiti	es covered		
operations, including stor	age, materials trai	e substance and its mixtures in batch or continuous asfers, mixing, tabletting, compression, ale packing, maintenance, sampling and associated	
Assessment Method			
See Section 3.			
Section 2 Operational c	conditions and ris	sk management measures	
Section 2.1 Control of v	vorker exposure	-	
Product characteristics			
Physical form of product	Liquid, vapour	pressure 0.5 - 10kPa at STP [OC4]	
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently) [G13]		
Amounts used	No Limit		
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]		
Other Operational Conditions affecting worker exposure	Assumes use a	at not > 20oC above ambient [G15]	
	Assumes a good been implement	od basic standard of occupational hygiene has nted [G1]	
Contributing Scenarios	-	anagement Measures and Operating Conditions ontrols to demonstrate safe use listed)	

No specific measures identified[EI18]

No specific measures identified[EI18]

General exposures

(closed systems) [CS15] PROC1 General exposures



Product characteristics	
Section 2.2 Control of	environmental exposure
[CS67] PROC2	
Material storage	No specific measures identified[EI18]
[CS67] PROC1	To openine medicates identificate may
Material storage	No specific measures identified[EI18]
and maintenance [CS39] PROC8a	
Equipment cleaning	No specific measures identified[EI18]
PROC9	
package filling [CS6]	,
Drum and small	No specific measures identified[EI18]
PROC14	^{'1}
compression, extrusion or pelletisation [CS100]	
by tabletting,	
preparation or articles	
Production or	No specific measures identified[EI18]
[CS8] PROC8b	
Drum/batch transfers	No specific measures identified[EI18]
PROC8a	
from/pouring from containers [CS22]	
	No specific measures identified[EI18]
PROC5	w No oppositio monocurso identifical(E14.0)
(open systems) [CS30]
Mixing operations	No specific measures identified[EI18]
PROC8b	
Bulk transfers [CS14]	No specific measures identified[EI18]
[CS36] PROC15	140 Specific measures identified[L110]
[CS2] PROC3 Laboratory activities	No specific measures identified[EI18]
Process sampling	No specific measures identified[El18]
PROC3	
temperature) [OC7]	
20°C above ambient	
temperature (> then	
carried out at elevated	
elevated temperatures [CS136]Operation is	
Batch processes at	No specific measures identified[EI18]
PROC4	
(open systems) [CS16	
General exposures	No specific measures identified[EI18]
[CS15] PROC3	
General exposures (closed systems)	No specific measures identified[EI18]
[CS15] PROC2	No appoific macoures identified[EI10]
(closed systems)	



Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].			
Amounts used			
Fraction of EU tonnage used in region	0.1		
Regional use tonnage (tonnes/year)	120		
Fraction of Regional tonnage used locally	1		
Annual site tonnage (tonnes/year)	120		
Maximum daily site tonnage (kg/day)	1200		
Frequency and duration of use			
Continuous release [FD2].			
Emission days (days/year)	100		
Environmental factors not influenced by risk management			
Local freshwater dilution factor	10		
Local marine water dilution factor	100		
Other given operational conditions affecting environmental ex	posure		
Release fraction to air from process (after typical onsite RMMs,	0.025		
consistent with EU Solvent Emissions Directive requirements)			
Release fraction to wastewater from process (initial release prior to	0.00002		
RMM)			
Release fraction to soil from process (initial release prior to RMM)	0.0001		
Technical conditions and measures at process level (source) to			
Common practices vary across sites thus conservative process rele			
Technical onsite conditions and measures to reduce or limit dis			
1 conficul districtions and incusares to reduce of infine dis			
and releases to soil	, o 8 c., w o		
and releases to soil			
and releases to soil Risk from environmental exposure is driven Freshwater Sediment	[TCR1b].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons	[TCR1b].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6].	[TCR1b].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%)	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%)	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%)	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%) Organisation measures to prevent/limit release from site	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%)	[TCR1b]. ite wastewater [TCR14].		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment substance removal from wastewater via domestic	[TCR1b]. ite wastewater [TCR14].		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment sewage treatment (%)	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment (%) Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant 96.2		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%) Maximum allowable site tonnage (M _{Safe}) based on release	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%) Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d)	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant 96.2 96.2 1300000		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment (%) Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%) Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d) Assumed domestic sewage treatment plant flow (m^3 /d)	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant 96.2 96.2 1300000 2000		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment (%) Total efficiency of removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%) Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d) Assumed domestic sewage treatment plant flow (m^3/d) Conditions and measures related to external treatment of wastewasters.	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant 96.2 96.2 1300000 2000 e for disposal		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%) Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d) Assumed domestic sewage treatment plant flow (m^3 /d) Conditions and measures related to external treatment of wast External treatment and disposal of waste should comply with applied to the content of the cont	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant 96.2 96.2 1300000 2000 e for disposal		
and releases to soil Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment sewage treatment (%) Total efficiency of removal from wastewater via domestic sewage treatment (%) Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d) Assumed domestic sewage treatment plant flow (m³/d) Conditions and measures related to external treatment of wast External treatment and disposal of waste should comply with applinegulations. [ETW3]	[TCR1b]. ite wastewater [TCR14]. 0		
Risk from environmental exposure is driven Freshwater Sediment Prevent discharge of undissolved substance to or recover from ons No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%) If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%) Organisation measures to prevent/limit release from site Conditions and measures related to municipal sewage treatment estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%) Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal (kg/d) Assumed domestic sewage treatment plant flow (m^3 /d) Conditions and measures related to external treatment of wast External treatment and disposal of waste should comply with applied to the content of the cont	[TCR1b]. ite wastewater [TCR14]. 0 0 0 nt plant 96.2 96.2 1300000 2000 e for disposal cable local and/of national		



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regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 - "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 4: Uses in Coatings – Industrial

200100110 10 0 20 111 0 0000111 80 1110	VI. VI 1441
Section 1 Exposure Scenario Title	
Title	
Uses in Coatings – Industrial GES 3.1	
Use Descriptor	
Sector(s) of Use	3
Process Categories	1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 14, 15
Environmental Release Categories	4
Specific Environmental Release Category	ESVOC 4.3a.v1
Processes tasks activities covered	•

Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, 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 Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]



product		
Concentration of	Covers percentage substance in the product up to 100%	
	Covers percentage substance in the product up to 100%	
substance in product	(unless stated differently) [G13] No Limit	
Amounts used		
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]	
duration of use		
Other Operational	Assumes use at not > 20oC above ambient [G15]	
Conditions affecting		
worker exposure		
•	Assumes a good basic standard of occupational hygiene has	
	been implemented [G1]	
Concentration of	Up to 100% (unless stated)	
substance in product	,	
General exposures	No specific measures identified[EI18]	
(closed systems)	No specific measures identificaterroj	
[CS15] PROC1		
General exposures	No specific measures identified[EI18]	
(closed systems)	140 Specific measures identified[E110]	
[CS15]with sample		
collection [CS56]Use in		
contained systems		
[CS38] PROC2	No appoitio magazinas identifical[F]40]	
Film formation - force	No specific measures identified[EI18]	
drying (50 - 100°C).		
Stoving (>100°C).		
UV/EB radiation curing		
[CS94]Operation is		
carried out at elevated		
temperature (> then		
20°C above ambient		
temperature) [OC7]		
PROC2		
Mixing operations	No specific measures identified[EI18]	
(closed systems)		
[CS29]General		
exposures (closed		
systems) [CS15]		
PROC3		
Film formation - air	No specific measures identified[EI18]	
drying [CS95] PROC4		
-	No specific measures identified[EI18]	
for application		
[CS96]Mixing		
operations (open		
systems) [CS30]		
PROC5		
Spraying	No specific measures identified[EI18]	
(automatic/robotic)		
· · · · · · · · · · · · · · · · · · ·	•	



[CS97] PROC7			
	No appoific managers identified[EI10]		
Manual	No specific measures identified[EI18]		
[CS34]Spraying [CS10]			
PROC7)		
Material transfers	No specific measures identified[El18]		
[CS3] PROC8a			
Material transfers	No specific measures identified[EI18]		
[CS3] PROC8b			
Roller, spreader, flow	No specific measures identified[EI18]		
application [CS98]			
PROC10			
Dipping, immersion	No specific measures identified[EI18]		
and pouring [CS4]			
PROC13			
Laboratory activities	No specific measures identified[El18]		
[CS36] PROC15			
Material transfers	No specific measures identified[EI18]		
[CS3]Drum/batch	The opening measures lashimed[E119]		
transfers			
[CS8]Transfer			
from/pouring from			
containers [CS22]			
PROC9			
Production or	No appoific maggures identified[El19]		
	No specific measures identified[EI18]		
preparation or articles			
by tabletting,			
compression, extrusion			
or pelletisation [CS100]			
PROC14			
Section 2.2 Control of en	nvironmental exposure		
Product characteristics			
	CB [PrC3]. Predominantly hydrophobic	[PrC4a].	
Amounts used			
Fraction of EU tonnage us		0.1	
Regional use tonnage (tonnes/year)		300	
Fraction of Regional tonnage used locally		1	
Annual site tonnage (tonnes/year)		300	
Maximum daily site tonnage (kg/day) 15000		15000	
Frequency and duration of use			
Continuous release [FD2].			
Emission days (days/year) 20			
Environmental factors not influenced by risk management			
Local freshwater dilution factor 10			
Local marine water dilution factor 100 Other given energtional conditions offerting environmental emegans			
Other given operational conditions affecting environmental exposure			
D 1 6 1 1 2	(1.1.1.1		
	1 /	0.98	
Release fraction to wastey	vater from process (initial release prior to	0.0007	



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RMM)			
Release fraction to soil	from process (initial release prior to RMM	1) 0	
Technical conditions and measures at process level (source) to prevent release			
	y across sites thus conservative process rel-		
	litions and measures to reduce or limit d		
and releases to soil		C ,	
Prevent discharge of u	ndissolved substance to or recover from on	site wastewater [TCR14].	
Risk from environmen	tal exposure is driven by Freshwater Sedim	nent [TCR1b].	
If discharging to dome	stic sewage treatment plant, no onsite wast	ewater treatment required	
[TCR10].			
Treat air emission to p	rovide a typical removal efficiency of (%)	90	
Treat onsite wastewate	er (prior to receiving water discharge) to	8.4	
provide the required re	moval efficiency ≥ (%)		
If discharging to dome	stic sewage treatment plant, provide the	0	
required onsite wastew	vater removal efficiency of \geq (%)		
Organisation measur	es to prevent/limit release from site	•	
	•		
Conditions and meas	ures related to municipal sewage treatmo	ent plant	
Estimated substance re	moval from wastewater via domestic	96.2	
sewage treatment (%)			
Total efficiency of rem	oval from wastewater after onsite and	96.2	
offsite (domestic treatr	nent plant) RMMs (%)		
Maximum allowable si	ite tonnage (M _{Safe}) based on release	370000	
following total wastew	ater treatment removal (kg/d)		
Assumed domestic sev	vage treatment plant flow (m ³ /d)	2000	
	ures related to external treatment of was		
	disposal of waste should comply with app	licable local and/of national	
regulations. [ETW3]			
	ures related to external recovery of wast		
	recycling of waste should comply with app	olicable local and/or national	
regulations. [ERW1]			
	n on the basis for the allocation of the ind		
contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.			
Section 3 Exposure	Estimation		
3.1. Health		1 1	
The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise			
indicated. [G21].			
3.2. Environment			
The Hydrocarbon Block Method has been used to calculate environmental exposure with the			
Petrorisk model [EE2]. Section 4 Cuidence to check compliance with the Evnesure Scenario			
Section 4 Guidance to check compliance with the Exposure Scenario			
4.1. Health	a not armosted to arroad the DNANET 1	on the Diel-Mana	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management			
Measures/Operational Conditions outlined in Section 2 are implemented. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.			
Available nazard data do not enable the derivation of a DNEL for dermai lititalit effects.			

Risk Management Measures are based on qualitative risk characterisation. [G37]

[G32]



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Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 5: Uses in Coatings – Professional

Scenario 5: Uses in Coatings – Froiessional				
Section 1 Exposure Scen	Section 1 Exposure Scenario Title			
Title				
Uses in Coatings – Profes	Uses in Coatings – Professional GES 3.2			
Use Descriptor				
Sector(s) of Use				
Process Categories	Process Categories 1, 2, 3, 4, 5, 8a, 8b, 10, 11, 13, 15, 19			
Environmental Release Ca	ategories	8a, 8d		
Specific Environmental R		ESVOC 8.3b.v1		
Processes, tasks, activitie	es covered			
Covers the use in coatings	(paints, inks, adh	nesives, etc) including exposures during use		
(including materials receip	ot, storage, prepar	ation and transfer from bulk and semi-bulk,		
application by spray, rolle	r, brush, spreader	by hand or similar methods, and film formation),		
and equipment cleaning, r	naintenance and a	ssociated laboratory activities.		
Assessment Method				
See Section 3.				
Section 2 Operational co	onditions and ris	k management measures		
Section 2.1 Control of w	orker exposure			
Product characteristics				
Physical form of	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]			
product				
Concentration of	Covers percentage substance in the product up to 100%			
substance in product	(unless stated differently) [G13]			
Amounts used	No Limit			
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]			
duration of use	,	`		
Other Operational	Assumes use at not > 20oC above ambient [G15]			
Conditions affecting	/ todamed ded at mot? 2000 above ambient [0.10]			
worker exposure				
•	Assumes a good basic standard of occupational hygiene has			
	been implemented [G1]			
Contributing Scenarios Specific Risk Management Measures and Operating Conditions				
	(only required controls to demonstrate safe use listed)			
General exposures	No specific measures identified[EI18]			
(closed systems)				
[CS15] PROC1				
Filling / preparation of	No specific measures identified[EI18]			



la su dia na ant franca dia na	
equipment from drums	
or containers. [CS45]	
PROC2	
General exposures	No specific measures identified[EI18]
(closed systems)	
[CS15]Use in	
contained systems	
[CS38] PRÓC2	
Preparation of material	No specific measures identified[EI18]
for application [CS96]	
PROC3	
Film formation - air	No specific measures identified[EI18]
drying [CS95]Outdoor	TVO Specific measures identifica[E110]
[OC9] PROC4	
	No an acitic magazinas identifical[FI4.0]
Film formation - air	No specific measures identified[EI18]
drying [CS95]Indoor	
[OC8] PROC4	NI
Preparation of material	No specific measures identified[EI18]
for application	
[CS96]Indoor [OC8]	
PROC5	
Preparation of material	No specific measures identified[EI18]
for application	
[CS96]Indoor [OC8]	
PROC5	
Preparation of material	No specific measures identified[EI18]
for application	' '
[CS96]Outdoor [OC9]	
PROC5	
Material transfers	No specific measures identified[EI18]
[CS3]Drum/batch	
transfers [CS8]	
PROC8a	
Material transfers	No specific measures identified[EI18]
[CS3]Drum/batch	rvo specific measures identifica[E110]
1	
transfers [CS8] PROC8b	
	No appoitio magazina identifical[F14.0]
Roller, spreader, flow	No specific measures identified[EI18]
application	
[CS98]Indoor [OC8]	
PROC10	
Roller, spreader, flow	No specific measures identified[EI18]
application	
[CS98]Outdoor [OC9]	
PROC10	
Manual	Carry out in a vented booth [E57]
[CS34]Spraying	
[CS10]Indoor [OC8]	
PROC11	
Р	



Manual [CS34]Spraying [CS10]Outdoor [OC9]	Ensure operation is undertaken outdo	oors [E69]	
PROC11	N		
Dipping, immersion and pouring [CS4]Indoor [OC8] PROC13	No specific measures identified[EI18]		
Dipping, immersion and pouring [CS4]Outdoor [OC9]	No specific measures identified[El18]		
PROC13 Laboratory activities [CS36] PROC15	No specific measures identified[El18]		
Hand application - fingerpaints, pastels, adhesives [CS72]Indoor [OC8] PROC19	No specific measures identified[El18]		
Hand application - fingerpaints, pastels, adhesives [CS72]Outdoor [OC9] PROC19	No specific measures identified[EI18]		
Section 2.2 Control of e	environmental exposure		
Product characteristics	<u> </u>		
Substance is complex UV	CB [PrC3]. Predominantly hydrophobic	[PrC4a].	
Amounts used			
Fraction of EU tonnage u	used in region	0.1	
Regional use tonnage (to	nnes/year)	260	
Fraction of Regional toni	nage used locally	0.0005	
Annual site tonnage (ton	nes/year)	0.13	
Maximum daily site tonn	age (kg/day)	0.36	
Frequency and duration	n of use		
Continuous release [FD2].		
Emission days (days/year	r)	365	
Environmental factors	not influenced by risk management		
Local freshwater dilution	· · · · · · · · · · · · · · · · · · ·	10	
Local marine water dilution factor		100	
Other given operational conditions affecting environmental exposure			
Dalaga fraction to air fra	om process (initial release prior to PMM)	0.08	
Release fraction to air from process (initial release prior to RMM) 0.98 Release fraction to wastewater from process (initial release prior to 0.01			
Release fraction to waste RMM)	water from process (illitial release prior to	0.01	
,	om process (initial release prior to RMM)	0.01	
	ad measures at process level (source) to p		
	across sites thus conservative process relea		
1 echnical onsite conditi	ions and measures to reduce or limit dis	charges, air emissions	



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and releases to soil						
Risk from environmenta	al exposure is driven by Agricultural Soil [TCR1f].				
No wastewater treatment required [TCR6].						
Treat air emission to pro	ovide a typical removal efficiency of (%)	0				
Treat onsite wastewater	(prior to receiving water discharge) to	0				
provide the required ren	noval efficiency ≥ (%)					
If discharging to domes	tic sewage treatment plant, provide the	0				
required onsite wastewa	ater removal efficiency of \geq (%)					
Organisation measure	s to prevent/limit release from site					
	-					
Conditions and measu	res related to municipal sewage treatme	nt plant				
Estimated substance rer	noval from wastewater via domestic	96.2				
sewage treatment (%)						
Total efficiency of removal from wastewater after onsite and 96.2						
offsite (domestic treatment plant) RMMs (%)						
Maximum allowable site tonnage (M _{Safe}) based on release 2400						
following total wastewater treatment removal (kg/d)						
Assumed domestic sewage treatment plant flow (m ³ /d) 2000						
Conditions and measures related to external treatment of waste for disposal						
External treatment and disposal of waste should comply with applicable local and/of national						
regulations. [ETW3]						
Conditions and measu	res related to external recovery of waste					
External recovery and recycling of waste should comply with applicable local and/or national						
regulations [EDW1]						

regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 - "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

[G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can



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be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 6: Uses in Coatings – Consumer

Scenario o: Uses in Coatings – Consumer					
Section 1 Exposure Scenario Title					
Title					
Uses in Coatings – Consumer GES 3.3					
Use Descriptor					
Sector(s) of Use		21			
Product Categories		1, 4, 8, 9, 15, 18, 23, 24, 31, 34			
Environmental Release Ca	itegories	8a, 8d			
Specific Environmental R	elease Category	ESVOC 8.3c.v1			
Processes, tasks, activitie	es covered				
Covers the use in coatings	(paints, inks, ac	lhesives, etc) including exposures during use			
		n, application by brush, spray by hand or similar			
methods) and equipment of					
Assessment Method					
See Section 3.					
Section 2 Operational co	onditions and r	sk management measures			
Section 2.1 Control of co					
Product characteristics	•				
Physical form of	Liquid, vapour	pressure 0.5 - 10kPa at STP [OC4]			
product		p			
Concentration of	Unless otherw	ise stated, cover concentrations up to 100%			
substance in product	[ConsOC1]	,			
Amounts used	Unless otherwise stated, covers use amounts up to13800g				
		overs skin contact area up to 857.5cm2			
	[ConsOC5]				
Frequency and	•	ise stated, covers use frequency up to 1 times			
duration of		OC4]; covers exposure up to 8 hours per event			
use/exposure	[ConsOC14]	1,			
Other Operational		ise stated assumes use at ambient			
Conditions affecting		[ConsOC15]; assumes use in a 20 m3 room			
exposure		assumes use with typical ventilation			
· · · · · · · · · · · · · · · · · · ·	[ConsOC8].				
Product Category		Management Measures and Operating Conditions			
	(only required controls to demonstrate safe use listed)				
PC1:Adhesives,	• •	s otherwise stated, covers concentrations up to			
sealantsGlues, hobby		ConsOC1]; covers use up to 365			
use	_	rear[ConsOC3]; covers use up to 1 time/on day			
doc		[ConsOC4]; covers skin contact area up to			
		cm2 [ConsOC5]; for each use event, covers			
		mounts up to 9g [ConsOC2]; covers use under			
		household ventilation [ConsOC8]; covers use			
	7 1	m size of 20m3[ConsOC11]; for each use			
		covers exposure up to			
	JO VOITE,	cororo expectatio ap to			



		4.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC1:Adhesives, sealantsGlues DIY- use (carpet glue, tile glue, wood parquet glue)	OC	Unless otherwise stated, covers concentrations up to 30% [ConsOC1]; covers use up to 1 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 110.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 6390g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 6.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC1:Adhesives, sealantsGlue from spray	OC	Unless otherwise stated, covers concentrations up to 30% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.73 cm2 [ConsOC5]; for each use event, covers use amounts up to 85.05g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 4.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC1:Adhesives, sealantsSealants	OC	Unless otherwise stated, covers concentrations up to 30% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.73 cm2 [ConsOC5]; for each use event, covers use amounts up to 75g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 1.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC4_n:Anti-freeze and de-icing products Washing car window	OC	Unless otherwise stated, covers concentrations up to 1% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 0.5g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.02hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs	



		stated
PC4_n:Anti-freeze and	OC	Unless otherwise stated, covers concentrations up to
de-icing products		10% [ConsOC1]; covers use up to 365
Pouring into radiator		days/year[ConsOC3]; covers use up to 1 time/on day
o l		of use[ConsOC4]; covers skin contact area up to
		428.00 cm2 [ConsOC5]; for each use event, covers
		use amounts up to 2000g [ConsOC2]; Covers use in
		a one car garage (34m3) under typcial ventilation
		[ConsOC10]; covers use in room size of
		34m3[ConsOC11]; for each use event, covers
		exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
	00	stated
PC4_n:Anti-freeze and	OC	Unless otherwise stated, covers concentrations up to
de-icing products		50% [ConsOC1]; covers use up to 365
Lock de-icer		days/year[ConsOC3]; covers use up to 1 time/on day
		of use[ConsOC4]; covers skin contact area up to
		214.40 cm2 [ConsOC5]; for each use event, covers
		use amounts up to 4g [ConsOC2]; Covers use in a
		one car garage (34m3) under typcial ventilation
		[ConsOC10]; covers use in room size of
		34m3[ConsOC11]; for each use event, covers
		exposure up to 0.25hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
	. (stated
PC8_n: Biocidal	OC	Unless otherwise stated, covers concentrations up to
products (excipient use		5% [ConsOC1]; covers use up to 365
only for solvent		days/year[ConsOC3]; covers use up to 1 time/on day
products)Laundry		of use[ConsOC4]; covers skin contact area up to
and dish washing		857.50 cm2 [ConsOC5]; for each use event, covers
_		
products		use amounts up to 15g [ConsOC2]; covers use under
		typical household ventilation [ConsOC8]; covers use
		in room size of 20m3[ConsOC11]; for each use
		event, covers exposure up to
		0.50hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
_		stated
products (excipient use		stated Unless otherwise stated, covers concentrations up to
		stated Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128
only for solvent		stated Unless otherwise stated, covers concentrations up to
		stated Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day
only for solvent products)Cleaners,		stated Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to
only for solvent products)Cleaners, liquids (all purpose		Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers
only for solvent products)Cleaners, liquids (all purpose cleaners, sanitary		Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 27g [ConsOC2]; covers use under
only for solvent products)Cleaners, liquids (all purpose cleaners, sanitary products, floor		Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 27g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use
only for solvent products)Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass		Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 27g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use
only for solvent products)Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet		Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 27g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to
only for solvent products)Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal		Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 27g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use
only for solvent products)Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)		Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 27g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to





INI Mail Matings and	OC	Unless otherwise stated, covers concentrations up to
PC9a:Coatings and	RMM	No specific RMMs identified beyond those OCs stated
		34m3[ConsOC11]; for each use event, covers exposure up to 0.33hr/event[ConsOC14];
		amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of
thinnersAerosol spray can		days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use
PC9a:Coatings and paints, fillers putties,	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2
	RMM	No specific RMMs identified beyond those OCs stated
		use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14];
high solid, water borne paint		428.75 cm2 [ConsOC5]; for each use event, covers
paints, fillers putties, thinnersSolvent rich,		27.5% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to
PC9a:Coatings and	ОС	Unless otherwise stated, covers concentrations up to
	RMM	No specific RMMs identified beyond those OCs stated
		covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14];
		use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8];
latex wall paint		of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers
paints, fillers putties, thinnersWaterborne		1.5% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day
PC9a:Coatings and	OC	Unless otherwise stated, covers concentrations up to
	RMM	0.17hr/event[ConsOC14]; No specific RMMs identified beyond those OCs
giass cleariers)		event, covers exposure up to
sanitary products, glass cleaners)		typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use
trigger sprays (all purpose cleaners,		428.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 35g [ConsOC2]; covers use under
only for solvent products)Cleaners,		days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to
products (excipient use		15% [ConsOC1]; covers use up to 128
PC8_n: Biocidal	OC	Unless otherwise stated, covers concentrations up to





paints, fillers putties,		50% [ConsOC1]; covers use up to 3	
thinnersRemovers		days/year[ConsOC3]; covers use up to 1 time/on day	
(paint-, glue-, wall		of use[ConsOC4]; covers skin contact area up to	
paper-, sealant-		857.50 cm2 [ConsOC5]; for each use event, covers	
remover)		use amounts up to 491g [ConsOC2]; covers use	
		under typical household ventilation [ConsOC8];	
		covers use in room size of 20m3[ConsOC11]; for	
		each use event, covers exposure up to	
		2.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs	
		stated	
PC9b:Fillers, putties,	OC	Unless otherwise stated, covers concentrations up to	
plasters, modeling		2% [ConsOC1]; covers use up to 12	
clayFillers and putty		days/year[ConsOC3]; covers use up to 1 time/on day	
		of use[ConsOC4]; covers skin contact area up to	
		35.73 cm2 [ConsOC5]; for each use event, covers	
		use amounts up to 85g [ConsOC2]; covers use under	
		typical household ventilation [ConsOC8]; covers use	
		in room size of 20m3[ConsOC11]; for each use	
		event, covers exposure up to	
		4.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs	
		stated	
PC9b:Fillers, putties,	OC	Unless otherwise stated, covers concentrations up to	
plasters, modeling		2% [ConsOC1]; covers use up to 12	
clayPlasters and floor		days/year[ConsOC3]; covers use up to 1 time/on day	
equalizers		of use[ConsOC4]; covers skin contact area up to	
5 qua5:5		857.50 cm2 [ConsOC5]; for each use event, covers	
		use amounts up to 13800g [ConsOC2]; covers use	
		under typical household ventilation [ConsOC8];	
		covers use in room size of 20m3[ConsOC11]; for	
		each use event, covers exposure up to	
		2.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs	
	I CIVIIVI	stated	
PC9b:Fillers, putties,	OC	Unless otherwise stated, covers concentrations up to	
plasters, modeling		1% [ConsOC1]; covers use up to 365	
clayModelling clay		days/year[ConsOC3]; covers use up to 1 time/on day	
		of use[ConsOC4]; covers skin contact area up to	
		254.40 cm2 [ConsOC5]; for each use event,	
		assumes swallowed amount of 1g [ConsOC13];	
	RMM	No specific RMMs identified beyond those OCs	
		stated	
PC9c:Finger paints	OC	Unless otherwise stated, covers concentrations up to	
Finger paints		50% [ConsOC1]; covers use up to 365	
		days/year[ConsOC3]; covers use up to 1 time/on day	
		of use[ConsOC4]; covers skin contact area up to	
		254.40 cm2 [ConsOC5]; for each use event,	
		assumes swallowed amount of 1.35g [ConsOC13];	
	l	[The second of	





	DIANA	No appoitio DMMa identified beyond those OCs
	RMM	No specific RMMs identified beyond those OCs stated
PC15_n: Non-metal	ОС	Unless otherwise stated, covers concentrations up to
• · · · · · · · · · · · · · · · · · · ·	OC	
surface treatment		1.5% [ConsOC1]; covers use up to 4
productsWaterborne		days/year[ConsOC3]; covers use up to 1 time/on day
latex wall paint		of use[ConsOC4]; covers skin contact area up to
		428.75 cm2 [ConsOC5]; for each use event, covers
		use amounts up to 2760g [ConsOC2]; covers use
		under typical household ventilation [ConsOC8];
		covers use in room size of 20m3[ConsOC11]; for
		each use event, covers exposure up to
		2.20hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
		stated
PC15_n: Non-metal	OC	Unless otherwise stated, covers concentrations up to
surface treatment		27.5% [ConsOC1]; covers use up to 6
productsSolvent rich,		days/year[ConsOC3]; covers use up to 1 time/on day
high solid, water borne		of use[ConsOC4]; covers skin contact area up to
paint		428.75 cm2 [ConsOC5]; for each use event, covers
Pann		use amounts up to 744g [ConsOC2]; covers use
		under typical household ventilation [ConsOC8];
		covers use in room size of 20m3[ConsOC11]; for
		each use event, covers exposure up to
	51414	2.20hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
		stated
PC15_n: Non-metal	OC	Unless otherwise stated, covers concentrations up to
surface treatment		50% [ConsOC1]; covers use up to 2
productsAerosol		days/year[ConsOC3]; covers use up to 1 time/on day
spray can		of use[ConsOC4]; for each use event, covers use
1. ,		amounts up to 215g [ConsOC2]; Covers use in a one
		car garage (34m3) under typcial ventilation
		[ConsOC10]; covers use in room size of
		34m3[ConsOC11]; for each use event, covers
		exposure up to 0.33hr/event[ConsOC14];
	RMM	
	KIVIIVI	No specific RMMs identified beyond those OCs stated
PC15_n: Non-metal	OC	Unless otherwise stated, covers concentrations up to
surface treatment	_ =	50% [ConsOC1]; covers use up to 3
productsRemovers		days/year[ConsOC3]; covers use up to 1 time/on day
(paint-, glue-, wall		of use[ConsOC4]; covers skin contact area up to
paper-, sealant-		857.50 cm2 [ConsOC5]; for each use event, covers
remover)		use amounts up to 491g [ConsOC2]; covers use
		under typical household ventilation [ConsOC8];
		covers use in room size of 20m3[ConsOC11]; for
		each use event, covers exposure up to
		2.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
		stated
	1	1





<u> </u>	100	lee e e e e e e e e e e e e e e e e e e
PC18_n: Ink and tonersInks and toners.	OC	Unless otherwise stated, covers concentrations up to 10% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 71.40 cm2 [ConsOC5]; for each use event, covers use amounts up to 40g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC23_n: Leather tanning, dye, finishing, impregnation and care productsPolishes, wax / cream (floor, furniture, shoes)	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 29 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 430.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 56g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 1.23hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC23_n: Leather tanning, dye, finishing, impregnation and care productsPolishes, spray (furniture, shoes)	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 8 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 430.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 56g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.33hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release productsLiquids	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 2200g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants,	OC	Unless otherwise stated, covers concentrations up to





greases, and release		0% [ConsOC1]; covers use up to 10	
productsPastes		ays/year[ConsOC3]; covers use up to 1 time/on day	
	of	of use[ConsOC4]; covers skin contact area up to	
	46	68.00 cm2 [ConsOC5]; for each use event, covers	
	us	use amounts up to 34g [ConsOC2]	
RN		specific RMMs identified beyond those OCs	
1		ated	
PC24: Lubricants, OC		nless otherwise stated, covers concentrations up to	
greases, and release		0% [ConsOC1]; covers use up to 6	
productsSprays		ays/year[ConsOC3]; covers use up to 1 time/on day	
productsoprays		use[ConsOC4]; covers skin contact area up to	
		28.75 cm2 [ConsOC5]; for each use event, covers	
		se amounts up to 73g [ConsOC2]; covers use under	
		pical household ventilation [ConsOC8]; covers use	
		room size of 20m3[ConsOC11]; for each use	
		vent, covers exposure up to	
		17hr/event[ConsOC14];	
RN	MM No	o specific RMMs identified beyond those OCs	
		ated	
PC31:Polishes and O0		nless otherwise stated, covers concentrations up to	
wax blendsPolishes,	50	0% [ConsOC1]; covers use up to 29	
wax / cream (floor,	da	ays/year[ConsOC3]; covers use up to 1 time/on day	
furniture, shoes)		use[ConsOC4]; covers skin contact area up to	
, ,		30.00 cm2 [ConsOC5]; for each use event, covers	
		se amounts up to 142g [ConsOC2]; covers use	
		nder typical household ventilation [ConsOC8];	
		overs use in room size of 20m3[ConsOC11]; for	
		ach use event, covers exposure up to	
		23hr/event[ConsOC14];	
RI		o specific RMMs identified beyond those OCs	
		ated	
PC31:Polishes and OC	C U	nless otherwise stated, covers concentrations up to	
wax blendsPolishes,		0% [ConsOC1]; covers use up to 8	
spray (furniture, shoes)		ays/year[ConsOC3]; covers use up to 1 time/on day	
opray (rannaro, erioco)		use[ConsOC4]; covers skin contact area up to	
		30.00 cm2 [ConsOC5]; for each use event, covers	
		se amounts up to 35g [ConsOC2]; covers use under	
		pical household ventilation [ConsOC8]; covers use	
	, , ,	room size of 20m3[ConsOC11]; for each use	
		· · · · · · · · · · · · · · · · · ·	
		vent, covers exposure up to	
		33hr/event[ConsOC14];	
Ri		o specific RMMs identified beyond those OCs atted	
PC34_n: Textile dyes, O0		nless otherwise stated, covers concentrations up to	
finishing and		0% [ConsOC1]; covers use up to 365	
impregnating products-		ays/year[ConsOC3]; covers use up to 1 time/on day	
 -		use[ConsOC4]; covers skin contact area up to	
	I ~ -	7 50 0 50 0 0 51. (
		57.50 cm2 [ConsOC5]; for each use event, covers se amounts up to 115g [ConsOC2]; covers use	



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		_	
		under typical household vent	
		covers use in room size of 20	- a-
		each use event, covers expo	sure up to
RM	11./1	1.00hr/event[ConsOC14]; No specific RMMs identified	havand those OCs
Kivi	IIVI	stated	beyond those OCs
Section 2.2 Control of enviro	onn		
Product characteristics			
Substance is complex UVCB [[PrC	[3]. Predominantly hydrophobic	[PrC4a].
Amounts used			
Fraction of EU tonnage used in			0.1
Regional use tonnage (tonnes/	_		40
Fraction of Regional tonnage u		l locally	0.0005
Annual site tonnage (tonnes/ye			0.02
Maximum daily site tonnage (l		lay)	0.055
Frequency and duration of u	ise		
Continuous release [FD2].			To 22
Emission days (days/year)			365
Environmental factors not in		enced by risk management	I.o.
Local freshwater dilution factor			10
Local marine water dilution fa			100
Other given operational cond	ditio	ons affecting environmental exp	osure
Dalaga fraction to air from pu		es (initial valence prior to DMM)	0.99
		ss (initial release prior to RMM) m process (initial release prior to	
RMM)	110	in process (mittal felease prior to	0.01
,	roce	ess (initial release prior to RMM)	0.005
		d to municipal sewage treatmen	
		e is driven by Freshwater [TRC 1	
Estimated substance removal from wastewater via domestic			96.2
sewage treatment (%)			
Maximum allowable site tonna	age	(M _{Safe}) based on release	640
following total wastewater trea			
Assumed domestic sewage trea	atm	ent plant flow (m ³ /d)	2000
		d to external treatment of waste	
External treatment and disposa	al of	f waste should comply with applic	cable local and/of national
regulations. [ETW3]			
		d to external recovery of waste	
	ng o	f waste should comply with appli	cable local and/or national
regulations. [ERW1]			
_		sis for the allocation of the inde	
Ÿ		IUCLID Section 13 – "LocalCS	SK" worksheet.
Section 3 Exposure Estimati	ion		
3.1. Health	00	yead to estimate assessment	ymaa aanaistant mille the
		used to estimate consumer expos	
<u>-</u>		O7 and the Chapter R15 of the IRa ese sources, then they are indicate	
3.2 Environment	o un	ese sources, men mey are mulcau	ou.

3.2. Environment



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The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

[G32]

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1].

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 7: Use in Cleaning Agents – Industrial

Section 1 Exposure Scenario Title	
Title	
Use in Cleaning Agents – Industrial GES	4.1
Use Descriptor	
Sector(s) of Use	3
Process Categories	2, 3, 4, 7, 8a, 8b, 10, 13
Environmental Release Categories	4
Specific Environmental Release Category	ESVOC 4.4a.v1
Processes, tasks, activities covered	

Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance.

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	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]
product	
Concentration of	Covers percentage substance in the product up to 100%
substance in product	(unless stated differently) [G13]
Amounts used	No Limit
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]
duration of use	
Other Operational	Assumes use at not > 20oC above ambient [G15]
Conditions affecting	
worker exposure	



	Assumes a good basic standard of occupational hygiene has				
	been implemented [G1]				
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions				
	(only required controls to demonstrate safe use listed)				
Bulk transfers [CS14] PROC8a	No specific measures identified[El18]				
Automated process with (semi) closed systems. [CS93]Use in contained systems [CS38] PROC2	No specific measures identified[EI18]				
Automated process with (semi) closed systems. [CS93]Drum/batch transfers [CS8] PROC3	No specific measures identified[El18]				
Application of cleaning products in closed systems [CS101] PROC2	No specific measures identified[EI18]				
Filling / preparation of equipment from drums or containers. [CS45] PROC8b	No specific measures identified[EI18]				
Use in contained batch processes [CS37] PROC4	No specific measures identified[EI18]				
Degreasing small objects in cleaning station [CS41] PROC13	No specific measures identified[EI18]				
Cleaning with low- pressure washers [CS42] PROC10	No specific measures identified[EI18]				
Cleaning with high pressure washers [CS44] PROC7	No specific measures identified[El18]				
Manual [CS34]Surfaces [CS48]Cleaning [CS47] PROC10					
Section 2.2 Control of e	nvironmental exposure				
Product characteristics					
Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].					
Amounts used					
Fraction of EU tonnage u					
Regional use tonnage (tor	nnes/year) 38				



Fraction of Regional tonnage used locally	1			
Annual site tonnage (tonnes/year)	38			
Maximum daily site tonnage (kg/day) 1900				
Frequency and duration of use				
Continuous release [FD2].				
Emission days (days/year)	20			
Environmental factors not influenced by risk management				
Local freshwater dilution factor	10			
Local marine water dilution factor	100			
Other given operational conditions affecting environmental ex				
other gryon operational conditions arrecting entri official en	000410			
Release fraction to air from process (initial release prior to RMM)	1.0			
Release fraction to wastewater from process (initial release prior to RMM)	0.0000003			
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 rele				
Technical onsite conditions and measures to reduce or limit dis	scharges, air emissions			
and releases to soil	<u> </u>			
Risk from environmental exposure is driven by Agricultural Soil [TCR1f].			
Prevent discharge of undissolved substance to or recover from ons	ite wastewater [TCR14].			
No wastewater treatment required [TCR6].				
Treat air emission to provide a typical removal efficiency of (%)	70			
Treat onsite wastewater (prior to receiving water discharge) to	0			
provide the required removal efficiency ≥ (%)				
If discharging to domestic sewage treatment plant, provide the 0				
required onsite wastewater removal efficiency of \geq (%)				
Organisation measures to prevent/limit release from site				
Conditions and measures related to municipal sewage treatment	nt plant			
	•			
Estimated substance removal from wastewater via domestic	96.2			
sewage treatment (%)				
Total efficiency of removal from wastewater after onsite and	96.2			
offsite (domestic treatment plant) RMMs (%)				
Maximum allowable site tonnage (M _{Safe}) based on release	13000000			
following total wastewater treatment removal (kg/d)				
Assumed domestic sewage treatment plant flow (m ³ /d)	2000			
Conditions and measures related to external treatment of wast	e for disposal			
External treatment and disposal of waste should comply with appli	cable local and/of national			
regulations. [ETW3]				
Conditions and measures related to external recovery of waste				
External recovery and recycling of waste should comply with appl	icable local and/or national			
regulations. [ERW1]				
Additional information on the basis for the allocation of the inde	ntified OCs and RMMs is			
contained in PETRORISK file in IUCLID Section 13 - "LocalCanal Canalage"	•			
Section 3 Exposure Estimation				
3.1. Health				
The ELE TOC TRA tool has been used to estimate workplace expe	osures unless otherwise			



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indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 8: Use in Cleaning Agents – Professional

Section 1 Exposure Scenario Title

Title				
Use in Cleaning Agents –	Professional GE	S 4.2		
Use Descriptor				
Sector(s) of Use	22			
Process Categories		2, 3, 4, 8a, 8b, 10, 11, 13		
Environmental Release Ca	ategories	8a, 8d		
Specific Environmental R	elease Category	ESVOC 8.4b.v1		
Processes, tasks, activition	es covered			
or containers; and exposur	res during mixing	products including pouring/unloading from drums /diluting in the preparatory phase and cleaning ping, wiping automated and by hand).		
See Section 3.				
	onditions and ris	k management measures		
Section 2.1 Control of worker exposure				
Product characteristics				
Physical form of product	Liquid, vapour į	oressure 0.5 - 10kPa at STP [OC4]		
Concentration of	Covers percentage substance in the product up to 100%			

(unless stated differently) [G13]

Covers daily exposures up to 8 hours (unless stated) [G2]

No Limit

Amounts used

Frequency and duration of use

substance in product



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Other Operational Conditions affecting	Assumes use at not > 20oC above ambient [G15]
worker exposure	
	Assumes a good basic standard of occupational hygiene has been implemented [G1]
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions
	(only required controls to demonstrate safe use listed)
Filling / preparation of	No specific measures identified[EI18]
equipment from drums or containers. [CS45]	
PROC8b	
Automated process	No specific measures identified[EI18]
with (semi) closed	· ·
systems. [CS93]Use in	
contained systems [CS38] PROC2	
Automated process	No specific measures identified[EI18]
with (semi) closed	gradus management
systems.	
[CS93]Drum/batch	
transfers [CS8]Use in contained systems	
[CS38] PROC3	
Semi Automated	No specific measures identified[EI18]
process. (e.g.: Semi	
automatic application	
of floor care and maintenance products)	
[CS76] PROC4	
Filling / preparation of	No specific measures identified[EI18]
equipment from drums	' '
or containers. [CS45]	
PROC8a	No an acitic magazina identific dIFI4 01
Manual [CS34]Surfaces	No specific measures identified[EI18]
[CS48]Cleaning	
[CS47]Dipping,	
immersion and pouring	
[CS4] PROC13	No apositio magguros identifical[E149]
Cleaning with low- pressure washers	No specific measures identified[EI18]
[CS42]Rolling,	
Brushing [CS51]no	
spraying [CS60]	
PROC10	
Cleaning with high	Provide enhanced mechanical ventilation by mechanical
pressure washers [CS44]Spraying	means [E48]
[CS10]Indoor [OC8]	
F = 11 mmm [e-e-1	

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PROC11				
Cleaning with high	Ensure operation is undertaken outo	loors [E69]		
pressure washers				
[CS44]Spraying				
[CS10]Outdoor [OC9]				
PROC11				
Manual	No specific measures identified[EI18	3]		
[CS34]Surfaces				
[CS48]Cleaning				
[CS47]Spraying [CS10]				
PROC10				
Ad hoc manual	No specific measures identified[EI18	3]		
application via trigger				
sprays, dipping, etc.				
[CS27]Rolling,				
Brushing [CS51]				
PROC10				
Ad hoc manual	No specific measures identified[EI18	B]		
application via trigger				
sprays, dipping, etc.				
[CS27]Rolling,				
Brushing [CS51]				
PROC10				
Application of cleaning	No specific measures identified[EI18	3]		
products in closed				
systems				
[CS101]Outdoor [OC9]				
PROC4				
Cleaning of medical	No specific measures identified[EI18	3]		
devices [CS74]				
PROC4				
Section 2.2 Control of environmental exposure				
Product characteristics				
Substance is complex UV	CB [PrC3]. Predominantly hydrophobic	[PrC4a].		
Amounts used				
Fraction of EU tonnage used in region 0.1				
Regional use tonnage (to	31			
Fraction of Regional tonnage used locally 0.0005				
Annual site tonnage (tonr	0.016			
Maximum daily site tonnage (kg/day) 0.043				
Frequency and duration	of use			
Continuous release [FD2].				
Emission days (days/year) 365				
Environmental factors not influenced by risk management				
Local freshwater dilution factor 10				
Local marine water diluti	on factor	100		
Other given operational	conditions affecting environmental ex	posure		



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Release fraction to air from process (initial release prior to RMM)	0.02
Release fraction to wastewater from process (initial release prior t	0.000001
RMM)	
Release fraction to soil from process (initial release prior to RMM	1) 0
Technical conditions and measures at process level (source) to	prevent release
Common practices vary across sites thus conservative process rele	
Technical onsite conditions and measures to reduce or limit di	ischarges, air emissions
and releases to soil	
Risk from environmental exposure is driven by Freshwater [TCR	la].
Prevent discharge of undissolved substance to or recover from on	site wastewater [TCR14].
No wastewater treatment required [TCR6].	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to	0
provide the required removal efficiency ≥ (%)	
If discharging to domestic sewage treatment plant, provide the	0
required onsite wastewater removal efficiency of \geq (%)	
Organisation measures to prevent/limit release from site	
Conditions and measures related to municipal sewage treatme	ent plant
•	•
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	
Total efficiency of removal from wastewater after onsite and	96.2
offsite (domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (M _{Safe}) based on release	650
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
Conditions and measures related to external treatment of was	te for disposal
External treatment and disposal of waste should comply with appl	licable local and/of national
regulations. [ETW3]	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with app	licable local and/or national
regulations. [ERW1]	
Additional information on the basis for the allocation of the ind	
contained in PETRORISK file in IUCLID Section 13 – "LocalC	CSR" worksheet.
Section 3 Exposure Estimation	
3.1. Health	
The ELE TOC TRA tool has been used to estimate workplace exp	oosures unless otherwise
indicated. [G21].	
3.2. Environment	
The Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate environment of the Hydrocarbon Block Method has been used to calculate the Hydrocarbon Bl	onmental exposure with the
Petrorisk model [EE2].	
Section 4 Guidance to check compliance with the Exposure S	Scenario
4.1. Health	
Predicted exposures are not expected to exceed the DN(M)EL wh	en the Risk Management

Measures/Operational Conditions outlined in Section 2 are implemented. [G22].

Risk Management Measures are based on qualitative risk characterisation. [G37]

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

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[G32]



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Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 9: Use in Cleaning Agents – Consumer

Section 1 Exposure Scenario Title			
Title			
Use in Cleaning Agents – Consumer GES 3.3			
Use Descriptor			
Sector(s) of Use			21
Product Categories			3, 4, 8 (excipient only), 9, 24, 35, 38
Environmental Release Ca	ategories		8a, 8d
Specific Environmental R	elease Cat	egory	ESVOC 8.4c.v1
Processes, tasks, activitie	es covered	l	
Covers general exposures	to consun	ners aris	ing from the use of household products sold as
washing and cleaning prod	ducts, aero	osols, co	patings, lubricants and air care products.
Assessment Method			
See Section 3.			
Section 2 Operational co			
Section 2.1 Control of co	onsumer e	exposur	re .
Product characteristics			
Physical form of	Liquid, v	apour p	oressure 0.5 - 10kPa at STP [OC4]
product			
Concentration of	Unless otherwise stated, cover concentrations up to 100%		
substance in product	[ConsOC1]		
Amounts used	Unless otherwise stated, covers use amounts up to13800g		
			ers skin contact area up to 857.5cm2
	[ConsOC		
Frequency and	Unless otherwise stated, covers use frequency up to 1 times		
duration of	per day [ConsOC4]; covers exposure up to 8 hours per event		
use/exposure	[ConsOC14]		
Other Operational	Unless otherwise stated assumes use at ambient		
Conditions affecting	temperatures [ConsOC15]; assumes use in a 20 m3 room		
exposure	[ConsOC11]; assumes use with typical ventilation		
	[ConsOC8].		
Product Category	Specific Risk Management Measures and Operating Conditions		
	(only required controls to demonstrate safe use listed)		
PC3:Air care products-	OC		s otherwise stated, covers concentrations up
-Air care, instant action			[ConsOC1]; covers use up to 365
(aerosol sprays)		days/y	ear[ConsOC3]; covers use up to 4 times/day





	ı	
	RMM	of use[ConsOC4]; for each use event, covers use amounts up to 0.1g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.25hr/event[ConsOC14]; No specific RMMs identified beyond those OCs
PC3:Air care products- -Air care, instant action (aerosol sprays)- pesticidal- excipient only	ОС	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 4 times/day of use[ConsOC4]; for each use event, covers use amounts up to 5g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.25hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC3:Air care productsAir care, continuous action (solid and liquid)	OC	Unless otherwise stated, covers concentrations up to 10% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.70 cm2 [ConsOC5]; for each use event, covers use amounts up to 0.48g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 8.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC3:Air care productsAir care, continuous action (solid and liquid)-pesticidal- excipient only		Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.70 cm2 [ConsOC5]; for each use event, covers use amounts up to 0.48g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 8.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC4_n:Anti-freeze and de-icing products Washing car window	OC	Unless otherwise stated, covers concentrations up to 1% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 0.5g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation





		[ConsOC10]; covers use in room size of
		34m3[ConsOC11]; for each use event, covers
		exposure up to 0.02hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC4_n:Anti-freeze and	OC	Unless otherwise stated, covers concentrations up
de-icing products		to 10% [ConsOC1]; covers use up to 365
Pouring into radiator		days/year[ConsOC3]; covers use up to 1 time/on
		day of use[ConsOC4]; covers skin contact area up
		to 428.00 cm2 [ConsOC5]; for each use event,
		covers use amounts up to 2000g [ConsOC2];
		Covers use in a one car garage (34m3) under
		typcial ventilation [ConsOC10]; covers use in room
		size of 34m3[ConsOC11]; for each use event,
		covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
		stated
PC4_n:Anti-freeze and	OC	Unless otherwise stated, covers concentrations up
de-icing products		to 50% [ConsOC1]; covers use up to 365
Lock de-icer		days/year[ConsOC3]; covers use up to 1 time/on
		day of use[ConsOC4]; covers skin contact area up
		to 214.40 cm2 [ConsOC5]; for each use event,
		covers use amounts up to 4g [ConsOC2]; Covers
		use in a one car garage (34m3) under typcial ventilation [ConsOC10]; covers use in room size of
		34m3[ConsOC11]; for each use event, covers
		exposure up to 0.25hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
		stated
PC8_n: Biocidal	OC	Unless otherwise stated, covers concentrations up
products (excipient use		to 5% [ConsOC1]; covers use up to 365
only for solvent		days/year[ConsOC3]; covers use up to 1 time/on
products)Laundry		day of use[ConsOC4]; covers skin contact area up
and dish washing		to 857.50 cm2 [ConsOC5]; for each use event,
products		covers use amounts up to 15g [ConsOC2]; covers
		use under typical household ventilation [ConsOC8];
		covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to
		0.50hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs
	TXIVIIVI	stated
PC8_n: Biocidal	OC	Unless otherwise stated, covers concentrations up
products (excipient use		to 5% [ConsOC1]; covers use up to 128
only for solvent		days/year[ConsOC3]; covers use up to 1 time/on
products)Cleaners,		day of use[ConsOC4]; covers skin contact area up
liquids (all purpose		to 857.50 cm2 [ConsOC5]; for each use event,
cleaners, sanitary		covers use amounts up to 27g [ConsOC2]; covers
products, floor		use under typical household ventilation [ConsOC8];
cleaners, glass		covers use in room size of 20m3[ConsOC11]; for





cleaners, carpet cleaners, metal cleaners (annotation of the content of the conte			
RMM No specific RMMs identified beyond those OCs stated	cleaners, carpet		each use event, covers exposure up to
RMM No specific RMMs identified beyond those OCs stated PC8_n: Biocidal OC Unless otherwise stated, covers concentrations up to 15% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.00 cm2 [ConsOC5]; for each use event, covers use in room size of 20m3[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use under typical household ventilation [ConsOC8]; covers use up to 0.17hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCS use under typical household ventilation [ConsOC8]; covers use up to 1.5% [ConsOC1]; covers use up to 1.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2.20hr/event[ConsOC5]; for each use event, covers use up to 2.20hr/event[ConsOC4]; covers use up to 2.20hr/event[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2 days/year[ConsOC3]; covers use up to 2 days/year[ConsOC3]; covers use up to 2 days/year[ConsOC3]; covers use up to 2 days/year[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; covers use in a one car garage (34m3) under typical ventilation in a one car	cleaners, metal		0.33hr/event[ConsOC14];
RMM No specific RMMs identified beyond those OCs stated PC8_n: Biocidal OC Unless otherwise stated, covers concentrations up to 15% [ConsOC1]; covers use up to 128 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.00 cm2 [ConsOC5]; for each use event, covers use in room size of 20m3[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use under typical household ventilation [ConsOC8]; covers use up to 0.17hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCS use under typical household ventilation [ConsOC8]; covers use up to 1.5% [ConsOC1]; covers use up to 1.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2.20hr/event[ConsOC5]; for each use event, covers use up to 2.20hr/event[ConsOC4]; covers use up to 2.20hr/event[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2 days/year[ConsOC3]; covers use up to 2 days/year[ConsOC3]; covers use up to 2 days/year[ConsOC3]; covers use up to 2 days/year[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; covers use in a one car garage (34m3) under typical ventilation in a one car	cleaners)		-
Stated OC	'	RMM	No specific RMMs identified beyond those OCs
PC8_n: Biocidal products (excipient use only for solvent products)—Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) PC9a:Coatings and paints, fillers putties, thinners—Waterborne latex wall paint PC9a:Coatings and paints, fillers putties, thinners—Solvent rich, high solid, water borne paint PC9a:Coatings and paints, fillers putties, thinners—Solvent rich, high solid, water borne paint PC9a:Coatings and paints, fillers putties, thinners—Solvent rich, high solid, water borne paint, fillers putties, thinners—Aerosol spray can PC9a:Coatings and paints, fillers putties, thinners—Aerosol spray can PC9a:Coatings and paints, fillers putties, thinners—Aerosol spray can OC Unless otherwise stated, covers concentrations up to 1.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated OC Unless otherwise stated, covers concentrations up to 27.5% [ConsOC5]; for each use event, covers use up to 6 tays/year[ConsOC5]; for each use event, covers use up to 7 time/on day of use[ConsOC4]; covers use up to 6 tays/year[ConsOC5]; for each use event, covers use under typical household ventilation [ConsOC8]; covers use under typical household ventilation [ConsOC6]; cov			·
products (excipient use only for solvent products)—Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinners—Solvent rich, high solid, water borne paint PC9a:Coatings and paints, fillers putties, thinners—Solvent rich, high solid, water borne paint RMM RMM RMM RMM RMM RMM RMM RMM RMM RMM RMM	DC8 n: Biocidal	00	
only for solvent products)-Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) Secondary States Consoc States	<u> </u>		· ·
products)-Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) Covers use amounts up to 35g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14]; RMM	· · · · · · · · · · · · · · · · · · ·	*	
trigger sprays (all purpose cleaners, sanitary products, glass cleaners) sanitary products, glass cleaners) RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paints, fillers putties, thinnersAerosol spray can RMM to 428.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 35g [ConsOC2]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14]; covers use up to 1 time/on day of use[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated OC Unless otherwise stated, covers concentrations up to 2.75% [ConsOC5]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 2.20hr/event[ConsOC1]; covers use up to 2.20hr/event[ConsOC1]; covers use up to 2.20hr/event[ConsOC1]; covers use up to 3.20hr/event[ConsOC1]; covers use up to 4.28.75 cm2 [ConsOC2]; covers use up to 6.22.00hr/event[ConsOC1]; covers use up to 6.22.00hr/event[ConsOC1]; covers use up to 6.22.00hr/event[ConsOC2]; covers use up to 6.22.00hr/event[ConsOC2]; covers use up to 6.22.00hr/event[ConsOC1]; covers use up to 6.22.00hr/event[ConsOC2]; covers use up to 6.22.00hr/event[
covers use amounts up to 35g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use under typical household ventilation [ConsOC3]; covers use under typical household ventilation [ConsOC3]; covers use under typical household ventilation [ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersWaterborne latex wall paint			1 1
sanitary products, glass cleaners) use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14]; RMM PC9a:Coatings and paints, fillers putties, thinnersWaterborne latex wall paint atex wall paint DC Unless otherwise stated, covers concentrations up to 1.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC3]; covers use up to 1 time/on day of use[ConsOC3]; covers use up to 1 time/on day of use[ConsOC3]; covers use up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use up to 27.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use [ConsOC4]; covers use up to 1 time/on day of use [ConsOC4]; covers use up to 22.20hr/event[ConsOC1]; covers use up to 1 time/on day of use[ConsOC2]; covers use up to 1 time/on day of use[ConsOC2]; covers use up to 1 time/on day of use[ConsOC2]; covers use up to 1 time/on day of use[ConsOC2]; covers use up to 1 time/on day of use[ConsOC2]; covers use up to 1 time/on day of use[ConsOC2]; covers use up to 1 time/on day of use[ConsOC2]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use up to 2 days/year[ConsOC3]; covers use up to 2 days/year[Cons			-
glass cleaners) Covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14]; RMM			
each use event, covers exposure up to 0.17hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersWaterborne latex wall paint RMM Value (ConsOC1); covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use (ConsOC4); covers use up to 1 time/on day of use (ConsOC4); covers use event, covers use under typical household ventilation (ConsOC8); covers use in room size of 20m3[ConsOC11]; for each use event, covers use in room size of 20m3[ConsOC11]; for each use event, covers use in room size of 20m3[ConsOC11]; for each use event, covers use in room size of 20m3[ConsOC11]; for each use event, covers use up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paint (ConsOC4); covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC5]; for each use event, covers use under typical household ventilation [ConsOC8]; covers use up to 2.20hr/event[ConsOC14]; no each use event, covers use under typical household ventilation [ConsOC8]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use up to 2 days/year[ConsOC4]; for each use event, covers use up to 2 days/year[ConsOC4]; for each use event, covers use up to 2 days/year[Co	• •		
Co.17hr/event[ConsOC14];	glass cleaners)		
Co.17hr/event[ConsOC14];			each use event, covers exposure up to
PC9a:Coatings and paints, fillers putties, thinnersWaterborne latex wall paint RMM PC9a:Coatings and paint Stated OC Unless otherwise stated, covers concentrations up to 1.5% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint OC Unless otherwise stated, covers concentrations up to 27.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs is use under typical household ventilation [ConsOC8]; covers use up to 1 time/on day of use[ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use up to 50% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			
PC9a:Coatings and paints, fillers putties, thinnersWaterborne latex wall paint RMM PC9a:Coatings and paint Stated OC Unless otherwise stated, covers concentrations up to 1.5% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint OC Unless otherwise stated, covers concentrations up to 27.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs is use under typical household ventilation [ConsOC8]; covers use up to 1 time/on day of use[ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use up to 50% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation		RMM	No specific RMMs identified beyond those OCs
PC9a:Coatings and paints, fillers putties, thinnersWaterborne latex wall paint DC			
paints, fillers putties, thinnersWaterborne latex wall paint to 1.5% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint PC9a:Coatings and compaints, fillers putties, thinnersSolvent rich, high solid, water borne paint RMM No specific RMMs identified beyond those OCs graph (consOC4); covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use in room size of 20m3[ConsOC1]; for each use event, covers use under typical household ventilation [ConsOC8]; covers use up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; covers use in a one car garage (34m3) under typical ventilation	PC9a:Coatings and	OC	
thinnersWaterborne latex wall paint days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint OC Unless otherwise stated, covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC5]; for each use event, covers use under typical household ventilation [ConsOC8]; covers use under typical household ventilation [ConsOC8]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation	_		·
latex wall paint day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint OC Unless otherwise stated, covers concentrations up to 27.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation			
to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint OC Unless otherwise stated, covers concentrations up to 27.5% [ConsOC1]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			
covers use amounts up to 2760g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint of 27.5% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can day of use[ConsOC4]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation	latex wall paint		
use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint Cossider and paint (covers use up to 6 (consOC4); covers use up to 1 time/on (covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can (consOC4); covers use up to 1 time/on day of use[ConsOC4]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation			-
covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint OC Unless otherwise stated, covers concentrations up to 27.5% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation			
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2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint PC9a:Coatings and paints fillers putties, thinnersSolvent rich, high solid, water borne paint PC9a:Coatings and paints RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can PC9a:ConsOC2]; covers use up to 2 Adays/year[ConsOC3]; covers use up to 2 Adays/year[ConsOC1]; covers use up to 2 Adays/year[ConsOC3]; covers use up to 2 Adays/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			-
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PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint RMM PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can stated OC Unless otherwise stated, covers concentrations up to 27.5% [ConsOC1]; covers use up to 1 time/on days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; No specific RMMs identified beyond those OCs stated Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			
PC9a:Coatings and paints, fillers putties, thinnersSolvent rich, high solid, water borne paint Composition		RMM	No specific RMMs identified beyond those OCs
paints, fillers putties, thinnersSolvent rich, high solid, water borne paint to 27.5% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			stated
thinnersSolvent rich, high solid, water borne paint days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation	PC9a:Coatings and	OC	Unless otherwise stated, covers concentrations up
high solid, water borne paint day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation	paints, fillers putties,		to 27.5% [ConsOC1]; covers use up to 6
high solid, water borne paint day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation	thinnersSolvent rich,		days/year[ConsOC3]; covers use up to 1 time/on
paint to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 744g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation			
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use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation	P 3		· · · · · · · · · · · · · · · · · · ·
covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can CC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
each use event, covers exposure up to 2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can OC Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			
2.20hr/event[ConsOC14]; RMM No specific RMMs identified beyond those OCs stated PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can CO Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			
PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can RMM No specific RMMs identified beyond those OCs stated Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation			
PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can stated Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation		DIMM	
PC9a:Coatings and paints, fillers putties, thinnersAerosol spray can Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation		LZIVIIVI	·
paints, fillers putties, thinnersAerosol spray can to 50% [ConsOC1]; covers use up to 2 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation	DC0arCaatinara arad	00	
thinnersAerosol spray can days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation	_		
day of use[ConsOC4]; for each use event, covers use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation	•		
use amounts up to 215g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation		'	
a one car garage (34m3) under typcial ventilation	can		
[ConsOC10]; covers use in room size of			
			[ConsOC10]; covers use in room size of
34m3[ConsOC11]; for each use event, covers		<u>L</u>	34m3[ConsOC11]; for each use event, covers



		exposure up to 0.33hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9a:Coatings and paints, fillers putties, thinnersRemovers (paint-, glue-, wall paper-, sealant-remover)	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 3 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 491g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9b:Fillers, putties, plasters, modeling clayFillers and putty	OC	Unless otherwise stated, covers concentrations up to 2% [ConsOC1]; covers use up to 12 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.73 cm2 [ConsOC5]; for each use event, covers use amounts up to 85g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 4.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9b:Fillers, putties, plasters, modeling clayPlasters and floor equalizers	OC	Unless otherwise stated, covers concentrations up to 2% [ConsOC1]; covers use up to 12 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 13800g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC9b:Fillers, putties, plasters, modeling clayModelling clay	OC	Unless otherwise stated, covers concentrations up to 1% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 254.40 cm2 [ConsOC5]; for each use event, assumes swallowed amount of 1g [ConsOC13];
	RMM	No specific RMMs identified beyond those OCs stated
PC9c:Finger paints Finger paints	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 365



		days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 254.40 cm2 [ConsOC5]; for each use event, assumes swallowed amount of 1.35g [ConsOC13];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release productsLiquids	oc	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 2200g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release productsPastes	oc	Unless otherwise stated, covers concentrations up to 20% [ConsOC1]; covers use up to 10 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 34g [ConsOC2];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release productsSprays	oc	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 73g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC35:Washing and cleaning products (including solvent based products)Laundry and dish washing products	OC	Unless otherwise stated, covers concentrations up to 5% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 857.50 cm2 [ConsOC5]; for each use event, covers use amounts up to 15g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.50hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs





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		stated	
PC35:Washing and	OC	Unless otherwise stated, covers concentrations up	
cleaning products		to 5% [ConsOC1]; covers use up to 128	
(including solvent		days/year[ConsOC3]; covers use up to 1 time/on	
based products)		day of use[ConsOC4]; covers skin contact area up	
Cleaners, liquids (all		to 857.50 cm2 [ConsOC5]; for each use event,	
purpose cleaners,		covers use amounts up to 27g [ConsOC2]; covers	
sanitary products, floor		use under typical household ventilation [ConsOC8];	
cleaners, glass		covers use in room size of 20m3[ConsOC11]; for	
cleaners, carpet		each use event, covers exposure up to	
cleaners, metal		0.33hr/event[ConsOC14];	
cleaners)		No anasifia DMMa identified havend those OCs	
	RMM	No specific RMMs identified beyond those OCs stated	
PC35:Washing and	OC	Unless otherwise stated, covers concentrations up	
cleaning products		to 15% [ConsOC1]; covers use up to 128	
(including solvent		days/year[ConsOC3]; covers use up to 1 time/on	
based products)		day of use[ConsOC4]; covers skin contact area up	
Cleaners, trigger		to 428.00 cm2 [ConsOC5]; for each use event,	
sprays (all purpose		covers use amounts up to 35g [ConsOC2]; covers	
cleaners, sanitary		use under typical household ventilation [ConsOC8];	
products, glass		covers use in room size of 20m3[ConsOC11]; for	
cleaners)		each use event, covers exposure up to	
		0.17hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC38_n: Welding and	OC	, , , , , , , , , , , , , , , , , , ,	
soldering products, flux	to 20% [ConsOC1]; covers use up to 365		
productsNOTE,		days/year[ConsOC3]; covers use up to 1 time/on	
n_assessment not in			
TRA		use amounts up to 12g [ConsOC2]; covers use	
		under typical household ventilation [ConsOC8];	
		covers use in room size of 20m3[ConsOC11]; for	
		each use event, covers exposure up to	
		1.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
Section 2.2 Control of environmental exposure			
Product characteristics		*	
Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].			
Amounts used			
Fraction of EU tonnage used in region 0.1			
Regional use tonnage (tonnes/year) 7.6			
Fraction of Regional tonnage used locally 0.0005			
Annual site tonnage (tonnes/year) 0.0038			
Maximum daily site tonnage (kg/day) 0.0036 0.0036			
Frequency and duration of use			
Continuous release [FD2].			



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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 exp	oosure	
Release fraction to air from process (initial release prior to RMM)	0.95	
Release fraction to wastewater from process (initial release prior to	0.025	
RMM)		
Release fraction to soil from process (initial release prior to RMM)	0.025	
Conditions and measures related to municipal sewage treatmen	it plant	
Risk from environmental exposure is driven by Freshwater [STP7a].	
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Maximum allowable site tonnage (M _{Safe}) based on release	140	
following total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m ³ /d)	2000	
	e 10 1	

Conditions and measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/of national regulations. [ETW3]

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report no. 107 and the Chapter R15 of the IR&CSA TGD. Where exposure determinants differ to these sources, then they are indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37]

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].



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Scenario 10: Lubricants – Industrial

Scenario 10. Lubricants – muustriai				
	Section 1 Exposure Scenario Title			
Title				
Lubricants – Industrial G	ES 6.1			
Use Descriptor		la.		
Sector(s) of Use		3		
Process Categories		1, 2, 3, 4, 7, 8a, 8b, 9, 10, 13, 17, 18		
Environmental Release Ca		4,7		
Specific Environmental R		ESVOC 4.6a.v1		
Processes, tasks, activitie				
transfers operations, opera articles, equipment mainte	Covers the use of formulated lubricants in closed and open systems including material transfers operations, operation of machinery/engines and similar articles, reworking on reject articles, equipment maintenance and disposal of wastes.			
Assessment Method				
See Section 3.				
		k management measures		
Section 2.1 Control of w	orker exposure			
Product characteristics				
Physical form of product	Liquid, vapour p	oressure 0.5 - 10kPa at STP [OC4]		
Concentration of	•	age substance in the product up to 100%		
substance in product	`	differently) [G13]		
Amounts used	No Limit			
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]			
Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient [G15]			
	Assumes a goo been implemen	nd basic standard of occupational hygiene has ited [G1]		
Contributing Scenarios		anagement Measures and Operating Conditions ontrols to demonstrate safe use listed)		
General exposures (closed systems) [CS15] PROC1	No specific mea	asures identified[EI18]		
General exposures (closed systems) [CS15] PROC2	No specific measures identified[EI18]			
General exposures (closed systems) [CS15] PROC3	No specific measures identified[El18]			
General exposures (open systems) [CS16] PROC4	No specific measures identified[EI18]			
Bulk transfers [CS14] PROC8b	No specific measures identified[EI18]			



No specific measures identified[EI18]
No specific measures identified[EI18]
No specific measures identified[EI18]
No specific measures identified[El18]
No specific measures identified[EI18]



Material storage No specific measures identified[EI1 [CS67] PROC2	[8]	
Section 2.2 Control of environmental exposure		
Product characteristics		
Substance is complex UVCB [PrC3]. Predominantly hydrophobic	ic [PrC4a].	
Amounts used		
Fraction of EU tonnage used in region	0.1	
Regional use tonnage (tonnes/year)	24	
Fraction of Regional tonnage used locally	1	
Annual site tonnage (tonnes/year)	24	
Maximum daily site tonnage (kg/day)	1200	
Frequency and duration of use		
Continuous release [FD2].		
Emission days (days/year)	20	
Environmental factors not influenced by risk management		
Local freshwater dilution factor	10	
Local marine water dilution factor	100	
Other given operational conditions affecting environmental e	xposure	
Release fraction to air from process (initial release prior to RMM	0.01	
Release fraction to wastewater from process (initial release prior		
RMM)		
Release fraction to soil from process (initial release prior to RMN	M) 0.001	
Technical conditions and measures at process level (source) to	o prevent release	
Common practices vary across sites thus conservative process rel	lease estimates used [TCS1].	
Technical onsite conditions and measures to reduce or limit d	lischarges, air emissions	
and releases to soil		
Risk from environmental exposure is driven by Freshwater Sedin		
Prevent discharge of undissolved substance to or recover from or	nsite wastewater [TCR14].	
No wastewater treatment required [TCR6].		
Treat air emission to provide a typical removal efficiency of (%)	70	
Treat onsite wastewater (prior to receiving water discharge) to	0	
provide the required removal efficiency ≥ (%)		
If discharging to domestic sewage treatment plant, provide the	0	
required onsite wastewater removal efficiency of \geq (%)		
Organisation measures to prevent/limit release from site		
Conditions and measures related to municipal sewage treatm	ent plant	
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Total efficiency of removal from wastewater after onsite and 96.2		
offsite (domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (M_{Safe}) based on release 8500000		
following total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m ³ /d) 2000		
Conditions and measures related to external treatment of waste for disposal		



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External treatment and disposal of waste should comply with applicable local and/of national regulations. [ETW3]

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 11: Lubricants – Professional: Low Environmental Release

Section 1 Exposure Scenario Title		
Title		
Lubricants – Professional: Low Environmental Release GES 6.2a		
Use Descriptor		
Sector(s) of Use	22	
Process Categories	1, 2, 3, 4, 8a, 8b, 9, 10, 11, 13, 17, 18, 20	
Environmental Release Categories	9a, 9b	
Specific Environmental Release Category ESVOC 9.6b.v1		
Processes, tasks, activities covered		
Covers the use of formulated lubricants in closed or contained systems including material		

Covers the use of formulated lubricants in closed or contained systems including material transfers operations, operation of engines and similar articles, reworking on reject articles, equipment maintenance and disposal of waste oil.

Assessment Method

See Section 3.



Section 2 Operational of	onditions and risk management measures
Section 2.1 Control of w	
Product characteristics	orker exposure
Physical form of product	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently) [G13]
Amounts used	No Limit
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]
Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient [G15]
	Assumes a good basic standard of occupational hygiene has been implemented [G1]
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions
	(only required controls to demonstrate safe use listed)
General exposures (closed systems) [CS15] PROC1	No specific measures identified[EI18]
General exposures (closed systems) [CS15] PROC2	No specific measures identified[EI18]
General exposures (closed systems) [CS15] PROC3	No specific measures identified[El18]
Operation of equipment containing enigne oils and similar [CS26] PROC20	No specific measures identified[EI18]
General exposures (open systems) [CS16] PROC4	No specific measures identified[EI18]
Bulk transfers [CS14] PROC8b	No specific measures identified[EI18]
Filling / preparation of equipment from drums or containers. [CS45]Dedicated facility [CS81] PROC8b	No specific measures identified[EI18]
Filling / preparation of equipment from drums or containers. [CS45]Non-dedicated facility [CS82] PROC8a Operation and	No specific measures identified[EI18] No specific measures identified[EI18]
	pro specific measures identificatentoj

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EXPOSURE SCENARIO

lubrication of high	
energy open	
equipment	
[CS17]Indoor [OC8]	
PROC17	
Operation and	No specific measures identified[EI18]
lubrication of high	' '
energy open	
equipment [CS17]	
PROC18	
Operation and	No specific measures identified[EI18]
lubrication of high	TVO Specific measures identifica[E110]
energy open	
equipment	
[CS17]Outdoor [OC9]	
1	
PROC17	No appoitio magauras identifical[FI40]
Maintenance (of larger	No specific measures identified[EI18]
plant items) and	
machine set up [CS77]	
PROC8b	
Maintenance (of larger	No specific measures identified[EI18]
plant items) and	
machine set up	
[CS77]Operation is	
carried out at elevated	
temperature (> then	
20°C above ambient	
temperature) [OC7]	
PROC8b	
Maintenance of small	Drain down system prior to equipment break-in or
items [CS18]Operation	maintenance [E65]
is carried out at	
elevated temperature	
(> then 20°C above	
àmbient temperature)	
[OC7] PROC8a	
Engine lubricant	No specific measures identified[EI18]
service [CS78] PROC9	
Manual applications	No specific measures identified[EI18]
e.g. brushing, rolling	
[CS13] PROC10	
Spraying [CS10]	Provide a good standard of general ventilation (3 to 5 air
PROC11	changes per hour) [E40]
Treatment by dipping	No specific measures identified[EI18]
and pouring [CS35]	140 Specific measures identified[E110]
PROC13	
Material storage	No specific measures identified[EI18]
_	ino specific measures identified[E110]
[CS67] PROC1	No appoific magazina identified[E149]
Material storage	No specific measures identified[EI18]



[CS67] PROC2	
Section 2.2 Control of environmental exposure	
Product characteristics	
Substance is complex UVCB [PrC3]. Predominantly hydrophobic	[PrC4a].
Amounts used	
Fraction of EU tonnage used in region	0.1
Regional use tonnage (tonnes/year)	12
Fraction of Regional tonnage used locally	0.0005
Annual site tonnage (tonnes/year)	0.0059
Maximum daily site tonnage (kg/day)	0.016
Frequency and duration of use	
Continuous release [FD2].	
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 ex	posure
	0.01
Release fraction to air from process (initial release prior to RMM)	0.01
Release fraction to wastewater from process (initial release prior to	0.01
RMM)	
Release fraction to soil from process (initial release prior to RMM)	
Technical conditions and measures at process level (source) to	
Common practices vary across sites thus conservative process rele	
Technical onsite conditions and measures to reduce or limit dis	scharges, air emissions
and releases to soil	-1
Risk from environmental exposure is driven by Freshwater [TCR1]	aj.
No wastewater treatment required [TCR6].	0
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to	0
provide the required removal efficiency ≥ (%)	
If discharging to domestic sewage treatment plant, provide the	0
required onsite wastewater removal efficiency of ≥ (%)	
Organisation measures to prevent/limit release from site	
Conditions and measures related to municipal sewage treatment	nt nlant
Conditions and incasures related to municipal sewage treatmen	nt plant
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	50.2
Total efficiency of removal from wastewater after onsite and	96.2
offsite (domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (M_{Safe}) based on release	220
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
Conditions and measures related to external treatment of wast	
External treatment and disposal of waste should comply with appli	
regulations. [ETW3]	The room with or individu
Conditions and measures related to external recovery of waste	
Strong 47 a 107	



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External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 12: Lubricants – Professional: High Environmental Release

Section 1 Exposure Scenario Title		
Title		
Lubricants - Professional: High Environme	ental Release GES 6.2b	
Use Descriptor		
Sector(s) of Use	22	
Process Categories	1, 2, 3, 4, 8a, 8b, 9, 10, 11, 13, 17, 18, 21	
Environmental Release Categories	8a, 8d	
Specific Environmental Release Category	ESVOC 8.6c.v1	
Processes, tasks, activities covered		
Covers the use of formulated lubricants in open systems including material transfers		
operations, operation of engines and similar articles, reworking on reject articles, equipment		
maintenance and disposal of waste oil.		
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 0.5 - 10kPa at STP [OC4]		
Concentration of	Covers percentage substance in the product up to 100%		
substance in product	(unless stated differently) [G13]		
Amounts used	No Limit		
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]		
duration of use	Assumes use at not > 20oC above ambient [C15]		
Other Operational Conditions affecting	Assumes use at not > 20oC above ambient [G15]		
worker exposure	Assumes a good basic standard of occupational hygiene has been implemented [G1]		
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions		
contributing section to	(only required controls to demonstrate safe use listed)		
General exposures (closed systems) [CS15] PROC1	No specific measures identified[EI18]		
General exposures (closed systems) [CS15] PROC2	No specific measures identified[EI18]		
General exposures (closed systems) [CS15] PROC3	No specific measures identified[EI18]		
Operation of equipment containing enigne oils and similar [CS26] PROC20	No specific measures identified[EI18]		
General exposures (open systems) [CS16] PROC4	No specific measures identified[EI18]		
Bulk transfers [CS14] PROC8b	No specific measures identified[EI18]		
Filling / preparation of equipment from drums or containers. [CS45]Dedicated facility [CS81] PROC8b	No specific measures identified[EI18]		
Filling / preparation of equipment from drums or containers. [CS45]Non-dedicated facility [CS82] PROC8a	No specific measures identified[EI18]		
Operation and lubrication of high energy open equipment [CS17]Indoor [OC8] PROC17	No specific measures identified[EI18]		



Amounts used	
Duosiance is commex UV	CD [TTC3]. TTCGOMMandy nydrophobic [TTC4a].
	CB [PrC3]. Predominantly hydrophobic [PrC4a].
Product characteristics	
Section 2.2 Control of e	nvironmental exposure
[CS67] PROC2	To openio moderno identinod[E110]
Material storage	No specific measures identified[EI18]
[CS67] PROC1	The specific measures identified[E110]
Material storage	No specific measures identified[EI18]
and pouring [CS35] PROC13	
Treatment by dipping	No specific measures identified[El18]
PROC11	changes per hour) [E40]
Spraying [CS10]	Provide a good standard of general ventilation (3 to 5 air
e.g. brushing, rolling [CS13] PROC10	
Manual applications	No specific measures identified[EI18]
Engine lubricant service [CS78] PROC9	No specific measures identified[EI18]
ambient temperature) [OC7] PROC8a	
(> then 20°C above	
elevated temperature	
is carried out at	
items [CS18]Operation	maintenance [E65]
Maintenance of small	Drain down system prior to equipment break-in or
PROC8b	
temperature) [OC7]	
20°C above ambient	
temperature (> then	
carried out at elevated	
[CS77]Operation is	
machine set up	
plant items) and	TWO Specific measures identified[LTTO]
	No specific measures identified[EI18]
machine set up [CS77] PROC8b	
plant items) and	
, -	No specific measures identified[EI18]
PROC17	
[CS17]Outdoor [OC9]	
equipment	
energy open	
lubrication of high	
Operation and	No specific measures identified[EI18]
PROC18	
equipment [CS17]	
energy open	
lubrication of high	To openio medane identinod[E110]
Operation and	No specific measures identified[EI18]



Fraction of EU tonnage used in region	0.1			
Regional use tonnage (tonnes/year)	12			
Fraction of Regional tonnage used locally	0.0005			
Annual site tonnage (tonnes/year)	0.0059			
Maximum daily site tonnage (kg/day)	0.016			
Frequency and duration of use				
Continuous release [FD2].				
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 exp				
oner given operational conditions affecting environmental exp	, osur c			
Release fraction to air from process (initial release prior to RMM)	0.40			
Release fraction to wastewater from process (initial release prior to				
RMM)	0.03			
Release fraction to soil from process (initial release prior to RMM)	0.05			
Technical conditions and measures at process level (source) to j				
Common practices vary across sites thus conservative process release				
Technical onsite conditions and measures to reduce or limit dis	charges, air emissions			
and releases to soil				
Risk from environmental exposure is driven by Freshwater [TCR1a	IJ.			
No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%)	0			
Treat onsite wastewater (prior to receiving water discharge) to	0			
provide the required removal efficiency ≥ (%)				
If discharging to domestic sewage treatment plant, provide the	0			
required onsite wastewater removal efficiency of ≥ (%)				
Organisation measures to prevent/limit release from site				
Conditions and measures related to municipal sewage treatmen	it plant			
	T			
Estimated substance removal from wastewater via domestic	96.2			
sewage treatment (%)				
Total efficiency of removal from wastewater after onsite and	96.2			
offsite (domestic treatment plant) RMMs (%)				
Maximum allowable site tonnage (M _{Safe}) based on release	170			
following total wastewater treatment removal (kg/d)				
Assumed domestic sewage treatment plant flow (m ³ /d)	2000			
Conditions and measures related to external treatment of waste	e for disposal			
External treatment and disposal of waste should comply with applic	cable local and/of national			
regulations. [ETW3]				
Conditions and measures related to external recovery of waste				
External recovery and recycling of waste should comply with appli	cable local and/or national			
regulations. [ERW1]				
Additional information on the basis for the allocation of the inde	ntified OCs and RMMs is			
contained in PETRORISK file in IUCLID Section 13 - "LocalCS	=			
Section 3 Exposure Estimation				



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3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 13: Lubricants – Consumer: Low Environmental Release

Section 1 Exposure Scenario Title			
Title			
Lubricants – Consumer: I	Low Environment	al Release GES 6.3a	
Use Descriptor			
Sector(s) of Use		21	
Product Categories		1, 24, 31	
Environmental Release Ca	tegories	9a, 9b	
Specific Environmental Re	elease Category	ESVOC 9.6d.v1	
Processes, tasks, activitie	s covered		
Covers the consumer use of	of formulated lubi	ricants in closed or contained systems including	
transfer operations, applica	ation, operation o	f engines and similar articles, equipment	
maintenance and disposal	of waste oil.		
Assessment Method			
See Section 3.			
Section 2 Operational conditions and risk management measures			
Section 2.1 Control of co	nsumer exposur	e	
Product characteristics			
Physical form of	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]		
product			
Concentration of	Unless otherwise stated, cover concentrations up to 100%		
substance in product	[ConsOC1]		
Amounts used	Unless otherwis	se stated, covers use amounts up to13800g	





[ConsOC2]; covers skin contact area up to 857.5cm2				
	[ConsOC5]			
Frequency and	Unless otherwise stated, covers use frequency up to 1 times			
duration of	per day [ConsOC4]; covers exposure up to 8 hours per event			
use/exposure	[ConsOC14]			
Other Operational		herwise stated assumes use at ambient		
Conditions affecting		res [ConsOC15]; assumes use in a 20 m3 room		
exposure	-	11]; assumes use with typical ventilation		
	[ConsOC	•		
Product Category		isk Management Measures and Operating Conditions		
	, , ,	ired controls to demonstrate safe use listed)		
PC1:Adhesives,	OC	Unless otherwise stated, covers concentrations up		
sealantsGlues, hobby		to 30% [ConsOC1]; covers use up to 365		
use		days/year[ConsOC3]; covers use up to 1 time/on		
		day of use[ConsOC4]; covers skin contact area up		
		to 35.73 cm2 [ConsOC5]; for each use event,		
		covers use amounts up to 9g [ConsOC2]; covers		
		use under typical household ventilation [ConsOC8];		
		covers use in room size of 20m3[ConsOC11]; for		
		each use event, covers exposure up to		
	4.00hr/event[ConsOC14];			
	RMM No specific RMMs identified beyond those OCs			
DO4 A II	stated			
PC1:Adhesives,	OC	Unless otherwise stated, covers concentrations up		
sealantsGlues DIY-	to 30% [ConsOC1]; covers use up to 1 days/year[ConsOC3]; covers use up to 1 time/on			
use (carpet glue, tile				
glue, wood parquet		day of use[ConsOC4]; covers skin contact area up		
glue)		to 110.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 6390g [ConsOC2];		
	covers use under typical household ventilation			
		[ConsOC8]; covers use in room size of		
		20m3[ConsOC11]; for each use event, covers		
		exposure up to 6.00hr/event[ConsOC14];		
	RMM	No specific RMMs identified beyond those OCs		
		stated		
PC1:Adhesives,	OC	Unless otherwise stated, covers concentrations up		
sealantsGlue from		to 30% [ConsOC1]; covers use up to 6		
spray		days/year[ConsOC3]; covers use up to 1 time/on		
		day of use[ConsOC4]; covers skin contact area up		
		to 35.73 cm2 [ConsOC5]; for each use event,		
		covers use amounts up to 85.05g [ConsOC2];		
		covers use under typical household ventilation		
		[ConsOC8]; covers use in room size of		
		20m3[ConsOC11]; for each use event, covers		
		exposure up to 4.00hr/event[ConsOC14];		
	RMM	No specific RMMs identified beyond those OCs		
		stated		
PC1:Adhesives,	OC Unless otherwise stated, covers concentrations up			
sealantsSealants	to 30% [ConsOC1]; covers use up to 365			





		days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.73 cm2 [ConsOC5]; for each use event, covers use amounts up to 75g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 1.00hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release productsLiquids	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 2200g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release productsPastes	OC	Unless otherwise stated, covers concentrations up to 20% [ConsOC1]; covers use up to 10 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 34g [ConsOC2];
	RMM	No specific RMMs identified beyond those OCs stated
PC24: Lubricants, greases, and release productsSprays	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 73g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];
	RMM	No specific RMMs identified beyond those OCs stated
PC31:Polishes and wax blendsPolishes wax / cream (floor, furniture, shoes)	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 29 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 430.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 142g [ConsOC2]; covers use under typical household ventilation [ConsOC8];



	ı	T	
		covers use in room size of	
		each use event, covers exp	posure up to
		1.23hr/event[ConsOC14];	
	RMM	No specific RMMs identifie	d beyond those OCs
		stated	
PC31:Polishes and	OC	Unless otherwise stated, co	
wax blendsPolishes,		to 50% [ConsOC1]; covers	use up to 8
spray (furniture, shoes)		days/year[ConsOC3]; cove	
		day of use[ConsOC4]; cove	ers skin contact area up
		to 430.00 cm2 [ConsOC5];	· · · · · · · · · · · · · · · · · · ·
		covers use amounts up to	<u> </u>
		use under typical househol	
		covers use in room size of	
		each use event, covers exp	posure up to
		0.33hr/event[ConsOC14];	
	RMM	No specific RMMs identifie	d beyond those OCs
		stated	
Section 2.2 Control of en	nvironmei	ntal exposure	
Product characteristics			
<u>L</u>	CB [PrC3]	. Predominantly hydrophobic	[PrC4a].
Amounts used			
Fraction of EU tonnage us		on	0.1
Regional use tonnage (ton			5.0
Fraction of Regional tonna	age used lo	ocally	0.0005
Annual site tonnage (tonnes/year)			0.0025
7 6 8 77			0.0068
Frequency and duration			
Continuous release [FD2].	•		
Emission days (days/year)			365
Environmental factors n	ot influen	ced by risk management	
Local freshwater dilution factor			10
Local marine water dilution factor			100
Other given operational	condition	s affecting environmental exp	osure
Release fraction to air from	m process	(initial release prior to RMM)	0.01
Release fraction to wastewater from process (initial release prior to			0.01
RMM)			
Release fraction to soil from process (initial release prior to RMM)			0.01
Conditions and measures related to municipal sewage treatment plant			
Risk from environmental	exposure is	s driven by Freshwater [STP7a]].
Estimated substance removal from wastewater via domestic			96.2
sewage treatment (%)			
b (bare)			100
following total wastewater treatment removal (kg/d)			
Assumed domestic sewage treatment plant flow (m ³ /d) 2000			2000
Conditions and measures related to external treatment of waste for disposal			
External treatment and dis	posal of w	aste should comply with applic	cable local and/of national
regulations. [ETW3]			



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Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report no. 107 and the Chapter R15 of the IR&CSA TGD. Where exposure determinants differ to these sources, then they are indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 14: Lubricants – Consumer: High Environmental Release

Section 1 Exposure Scenario Title			
Title			
Lubricants – Consumer: high environmental release GES 6.3b			
Use Descriptor			
Sector(s) of Use	21		
Product Categories	1, 24, 31		
Environmental Release Categories	8a, 8d		
Specific Environmental Release Category	ESVOC 8.6e.v1		
Processes, tasks, activities covered			
Covers the consumer use of formulated lub	pricants in open systems including transfer		
operations, application, operation of engine	es and similar articles, equipment maintenance and		
disposal of waste oil.			
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 Liquid, vapour	pressure 0.5 - 10kPa at STP [OC4]		





product	1			
Product of of	l lalaga otha	muine stated sever concentrations up to 1000/		
Concentration of	Unless otherwise stated, cover concentrations up to 100%			
substance in product	[ConsOC1]			
Amounts used	Unless otherwise stated, covers use amounts up to 13800g			
	[ConsOC2]; covers skin contact area up to 857.5cm2			
	[ConsOC5]			
Frequency and		rwise stated, covers use frequency up to 1 times		
duration of		nsOC4]; covers exposure up to 8 hours per event		
use/exposure	[ConsOC14			
Other Operational		rwise stated assumes use at ambient		
Conditions affecting		es [ConsOC15]; assumes use in a 20 m3 room		
exposure	[ConsOC11]; assumes use with typical ventilation		
	[ConsOC8].			
Product Category	_	x Management Measures and Operating Conditions		
	(only require	d controls to demonstrate safe use listed)		
PC1:Adhesives,	OC	Unless otherwise stated, covers concentrations		
sealantsGlues, hobby		up to 30% [ConsOC1]; covers use up to 365		
use		days/year[ConsOC3]; covers use up to 1 time/on		
		day of use[ConsOC4]; covers skin contact area		
		up to 35.73 cm2 [ConsOC5]; for each use event,		
	covers use amounts up to 9g [ConsOC2]; couse under typical household ventilation			
	[ConsOC8]; covers use in room size of			
	20m3[ConsOC11]; for each use event, covers			
	exposure up to 4.00hr/event[ConsOC14];			
	RMM No specific RMMs identified beyond those OCs			
	stated			
PC1:Adhesives,	OC Unless otherwise stated, covers concentrations			
sealantsGlues DIY-	up to 30% [ConsOC1]; covers use up to 1			
use (carpet glue, tile	days/year[ConsOC3]; covers use up to 1 time/on			
glue, wood parquet		day of use[ConsOC4]; covers skin contact area		
glue)		up to 110.00 cm2 [ConsOC5]; for each use		
		event, covers use amounts up to 6390g		
		[ConsOC2]; covers use under typical household		
		ventilation [ConsOC8]; covers use in room size		
		of 20m3[ConsOC11]; for each use event, covers		
		exposure up to 6.00hr/event[ConsOC14];		
	RMM	No specific RMMs identified beyond those OCs		
		stated		
PC1:Adhesives,	OC	Unless otherwise stated, covers concentrations		
sealantsGlue from	up to 30% [ConsOC1]; covers use up to 6			
spray		days/year[ConsOC3]; covers use up to 1 time/on		
35.57	day of use[ConsOC4]; covers skin contact area			
		up to 35.73 cm2 [ConsOC5]; for each use event,		
		covers use amounts up to 85.05g [ConsOC2];		
		covers use under typical household ventilation		
		[ConsOC8]; covers use in room size of		



		20m3[ConsOC11]; for each use event, covers	
		exposure up to 4.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC1:Adhesives, sealantsSealants	OC	Unless otherwise stated, covers concentrations up to 30% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 35.73 cm2 [ConsOC5]; for each use event, covers use amounts up to 75g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 1.00hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC24: Lubricants, greases, and release productsLiquids	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 4 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 2200g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC24: Lubricants, greases, and release productsPastes	OC	Unless otherwise stated, covers concentrations up to 20% [ConsOC1]; covers use up to 10 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 468.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 34g [ConsOC2];	
	RMM	No specific RMMs identified beyond those OCs stated	
PC24: Lubricants, greases, and release productsSprays	OC	Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 6 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 428.75 cm2 [ConsOC5]; for each use event, covers use amounts up to 73g [ConsOC2]; covers use under typical household ventilation [ConsOC8]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0.17hr/event[ConsOC14];	
	RMM	No specific RMMs identified beyond those OCs	



<u>+</u>		stated	
PC31:Polishes and	OC		covere concentrations
wax blendsPolishes,		Unless otherwise stated, covers concentrations up to 50% [ConsOC1]; covers use up to 29	
wax bieriusPolisties, wax / cream (floor,			• • • • • • • • • • • • • • • • • • •
furniture, shoes)		days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area	
lumiture, snoes)			
		up to 430.00 cm2 [Const	-
		event, covers use amour	
		[ConsOC2]; covers use use use use use use use use use us	7 .
		ventilation [ConsOC8]; c	
		of 20m3[ConsOC11]; for	
	DMM	exposure up to 1.23hr/e	
	RMM	No specific RMMs identif	ned beyond those OCs
DOOA : Dallahaa ayad	00	stated	
PC31:Polishes and	OC	Unless otherwise stated,	
wax blendsPolishes,		up to 50% [ConsOC1]; c	•
spray (furniture, shoes)		days/year[ConsOC3]; co	
		day of use[ConsOC4]; co	
		up to 430.00 cm2 [Cons0	-
		event, covers use amour	
		[ConsOC2]; covers use use use use use use use use use us	
		ventilation [ConsOC8]; c	
	of 20m3[ConsOC11]; for each use event, co		
	exposure up to 0.33hr/event[ConsOC14];		
	RMM	No specific RMMs identificated	ried beyond those OCs
Section 2.2 Control of ea	vironmenta		
Product characteristics	ivii ommenta	схрозите	
	CB [PrC3]. F	Predominantly hydrophobic	[PrC4a].
Amounts used		J J 1	1
Fraction of EU tonnage us	ed in region		0.1
Regional use tonnage (ton			5.0
Fraction of Regional tonna	age used local	llv	0.0005
Annual site tonnage (tonne	•		0.0025
Maximum daily site tonna			0.0068
Frequency and duration	<u> </u>		0.000
Continuous release [FD2].			
Emission days (days/year)			365
Environmental factors n		hv risk management	000
Local freshwater dilution		by 113x management	10
Local marine water dilution factor			100
		ffecting environmental exp	
other given operational	conditions a	receing environmental exp	osuic
Release fraction to air from	n process (ini	tial release prior to RMM)	0.40
Release fraction to wastewater from process (initial release prior to 0.05			
RMM)	prom pro	· · · · · · · · · · · · · · · · · · ·	- · · · ·
,	om process (ir	nitial release prior to RMM)	0.05
		nunicipal sewage treatmen	
		iven by Freshwater [STP7a]	•
	T TO GI		1 .



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Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	
Maximum allowable site tonnage (M _{Safe}) based on release	88
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000

Conditions and measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/of national regulations. [ETW3]

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report no. 107 and the Chapter R15 of the IR&CSA TGD. Where exposure determinants differ to these sources, then they are indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37]

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1].

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 15: Use in Metal Working Fluids/Rolling Oils – Industrial

Section 1 Exposure Scenario Title	
Title	
Use in Metal Working Fluids/Rolling Oils – Industrial GES 7.1	
Use Descriptor	
Sector(s) of Use	3
Process Categories	1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 17
Environmental Release Categories	4
Specific Environmental Release Category	ESVOC 4.7a.v1
Processes, tasks, activities covered	



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Covers the use in formulated MWFs/rolling oils including transfer operations, rolling and annealing activities, cutting/machining activities, automated and manual application of corrosion protections (including brushing, dipping and spraying), equipment maintenance, draining and disposal of waste oils.

draining and disposal of w	draining and disposal of waste oils.		
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	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]		
product			
Concentration of	Covers percentage substance in the product up to 100%		
substance in product	(unless stated differently) [G13]		
Amounts used	No Limit		
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]		
duration of use			
Other Operational	Assumes use at not > 20oC above ambient [G15]		
Conditions affecting			
worker exposure			
	Assumes a good basic standard of occupational hygiene has been implemented [G1]		
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions		
	(only required controls to demonstrate safe use listed)		
General exposures	No specific measures identified[EI18]		
(closed systems)			
[CS15] PROC1			
General exposures	No specific measures identified[El18]		
(closed systems)			
[CS15] PROC2			
General exposures	No specific measures identified[EI18]		
(closed systems)			
[CS15] PROC3			
General exposures	No specific measures identified[EI18]		
(open systems) [CS16]			
PROC4			
Bulk transfers [CS14] PROC8b	No specific measures identified[EI18]		
Filling / preparation of	No specific measures identified[EI18]		
equipment from drums			
or containers. [CS45]			
PROC8b			
Filling / preparation of	No specific measures identified[EI18]		
equipment from drums			
or containers. [CS45]			
PROC5			
Filling / preparation of	No specific measures identified[EI18]		
equipment from drums			
or containers. [CS45]			



PROC9 Process sampling [CS2] PROC8b Metal machining operations [CS79] PROC17 Treatment by dipping and pouring [CS35] PROC13 Spraying [CS10] PROC7 Manual applications e.g. brushing, rolling [CS13] PROC10 Automated metal rolling/forming [CS80]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC17 Semi-automated metal rolling/forming [CS83]	
CS2 PROC8b Metal machining operations [CS79] PROC17	
operations [CS79] PROC17 Treatment by dipping and pouring [CS35] PROC13 Spraying [CS10] PROC7 Manual applications e.g. brushing, rolling [CS13] PROC10 Automated metal rolling/forming [CS80]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC2 Semi-automated metal rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature (> then 20°C above ambient temperature) [OC7] PROC2 Semi-automated metal rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC17 Semi-automated metal No specific measures identified[EI18]	
and pouring [CS35] PROC13 Spraying [CS10] PROC7 Manual applications e.g. brushing, rolling [CS13] PROC10 Automated metal rolling/forming [CS80]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC2 Semi-automated metal rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC17 Semi-automated metal No specific measures identified[EI18]	
Manual applications e.g. brushing, rolling [CS13] PROC10 Automated metal rolling/forming [CS80]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC2 Semi-automated metal rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature (> then 20°C above ambient rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature (> then 20°C above ambient temperature) [OC7] PROC17 Semi-automated metal No specific measures identified[EI18]	
e.g. brushing, rolling [CS13] PROC10 Automated metal rolling/forming [CS80]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC2 Semi-automated metal rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC2 Semi-automated metal rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC17 Semi-automated metal No specific measures identified[EI18]	
rolling/forming [CS80]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC2 Semi-automated metal rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC17 Semi-automated metal No specific measures identified[EI18]	
rolling/forming [CS83]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC17 Semi-automated metal No specific measures identified[EI18]	
PROC4	
Equipment cleaning and maintenance [CS39]Dedicated facility [CS81] PROC8b	
Equipment cleaning and maintenance [CS39]Non-dedicated facility [CS82] PROC8a	
Material storage No specific measures identified[EI18] [CS67] PROC1	
Material storage [CS67] PROC2 No specific measures identified[EI18]	
Section 2.2 Control of environmental exposure	
Product characteristics	



Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].		
Amounts used		
Fraction of EU tonnage used in region	0.1	
Regional use tonnage (tonnes/year)	15	
Fraction of Regional tonnage used locally	1	
Annual site tonnage (tonnes/year)	15	
Maximum daily site tonnage (kg/day)	740	
Frequency and duration of use		
Continuous release [FD2].		
Emission days (days/year)	20	
Environmental factors not influenced by risk management		
Local freshwater dilution factor	10	
Local marine water dilution factor	100	
Other given operational conditions affecting environmental ex	posure	
	_	
Release fraction to air from process (initial release prior to RMM)	0.02	
Release fraction to wastewater from process (initial release prior t		
RMM)		
Release fraction to soil from process (initial release prior to RMM	0 0	
Technical conditions and measures at process level (source) to	prevent release	
Common practices vary across sites thus conservative process rele		
Technical onsite conditions and measures to reduce or limit di		
and releases to soil	,	
Risk from environmental exposure is driven by Freshwater Sedim	ent [TCR1b].	
Prevent discharge of undissolved substance to or recover from ons		
No wastewater treatment required [TCR6].		
Treat air emission to provide a typical removal efficiency of (%)	70	
Treat onsite wastewater (prior to receiving water discharge) to	0	
provide the required removal efficiency ≥ (%)		
If discharging to domestic sewage treatment plant, provide the	0	
required onsite wastewater removal efficiency of \geq (%)		
Organisation measures to prevent/limit release from site	•	
•		
Conditions and measures related to municipal sewage treatme	ent plant	
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Total efficiency of removal from wastewater after onsite and	96.2	
offsite (domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (M _{Safe}) based on release	8500000	
following total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m ³ /d)	2000	
Conditions and measures related to external treatment of was	te for disposal	
External treatment and disposal of waste should comply with appl		
regulations. [ETW3]		
Conditions and measures related to external recovery of waste	<u> </u>	
External recovery and recycling of waste should comply with appl		
regulations. [ERW1]		



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Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

[G32]
Risk Management Measures are based on qualitative risk characterisation. [G37]
Where other Risk Management Measures/Operational Conditions are adopted, then users

should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 16: Use in Metal Working Fluids/Rolling Oils – Professional: High Environmental Release

Section 1 Exposure Scenario Title			
Title			
Use in Metal working fluids / rolling oils – Professional: high environmental release GES 7.2			
Use Descriptor			
Sector(s) of Use	22		
Process Categories	1, 2, 3, 8a, 8b, 9, 10, 11, 13, 17		
Environmental Release Categories	8a, 9a (8a only)		
Specific Environmental Release Category	ESVOC SpERC 8.7c.v1		
Processes, tasks, activities covered			
Covers the use in formulated MWFs including transfer operations, open and contained			
cutting/machining activities, automated and manual application of corrosion protections,			
draining and working on contaminated/reject articles, and disposal of waste oils.			
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 Liquid, vapour	r pressure 0.5 - 10kPa at STP [OC4]		



product	
Concentration of	Covers percentage substance in the product up to 100%
substance in product	(unless stated differently) [G13]
Amounts used	No Limit
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]
duration of use	
Other Operational	Assumes use at not > 20oC above ambient [G15]
Conditions affecting	
worker exposure	
Worker expectate	Assumes a good basic standard of occupational hygiene has
	been implemented [G1]
Contributing Scenarios	
Contributing Seenarios	(only required controls to demonstrate safe use listed)
General exposures	No specific measures identified[EI18]
(closed systems)	
[CS15] PROC1	
General exposures	No specific measures identified[EI18]
(closed systems)	
[CS15] PROC2	
General exposures	No specific measures identified[EI18]
(closed systems)	
[CS15] PROC3	
Bulk transfers [CS14]	No specific measures identified[EI18]
PROC8b	
Filling / preparation of	No specific measures identified[EI18]
equipment from drums	'
or containers.	
[CS45]Dedicated	
facility [CS81]	
PROC8b	
Filling / preparation of	No specific measures identified[EI18]
equipment from drums	
or containers.	
[CS45]Dedicated	
facility [CS81] PROC9	
Filling / preparation of	No specific measures identified[EI18]
equipment from drums	nao specino measures identined[E110]
or containers.	
[CS45]Non-dedicated	
facility [CS82]	
PROC8a	No appositio propograpa i de atti di ITTI 401
Process sampling	No specific measures identified[EI18]
[CS2] PROC8b	
Metal machining	No specific measures identified[EI18]
operations [CS79]	
PROC17	
Manual applications	No specific measures identified[EI18]
e.g. brushing, rolling	



[CS13] PROC10		-	
Spraying [CS10]	Provide a good standard of general v	entilation (3 to 5 air	
PROC11	changes per hour) [E40]		
Treatment by dipping	No specific measures identified[EI18]		
and pouring [CS35]			
PROC13			
Equipment cleaning	No specific measures identified[El18]]	
and maintenance			
[CS39]Non-dedicated			
facility [CS82]			
PROC8a			
Equipment cleaning	No specific measures identified[EI18		
and maintenance			
[CS39]Dedicated			
facility [CS81]			
PROC8b			
Material storage	No specific measures identified[EI18]		
[CS67] PROC1		-	
Material storage	No specific measures identified[EI18]		
[CS67] PROC2	'	•	
	environmental exposure		
Product characteristic			
Substance is complex U	VCB [PrC3]. Predominantly hydrophobic	[PrC4a].	
Amounts used	to be the second	[2 1 0 1 0].	
Fraction of EU tonnage	used in region	0.1	
Regional use tonnage (to		7.4	
Fraction of Regional tonnage used locally 0.0005			
Annual site tonnage (tor		0.0037	
Maximum daily site tonnage (kg/day) 0.0037 0.0037			
Frequency and duration of use			
Continuous release [FD]			
Emission days (days/yes		365	
	not influenced by risk management	303	
	· ·	10	
Local freshwater dilutio		100	
Local marine water dilu		100	
Otner given operation	al conditions affecting environmental exp	osure	
D 1 C .:	/: '.' 1 1	0.40	
	1 ' 1	0.40	
	ewater from process (initial release prior to	0.05	
RMM)			
	from process (initial release prior to RMM)		
	nd measures at process level (source) to p		
	across sites thus conservative process relea		
	tions and measures to reduce or limit dis	charges, air emissions	
and releases to soil			
	al exposure is driven by Freshwater [TCR1a	1].	
No wastewater treatmen			
Treat air emission to pro	ovide a typical removal efficiency of (%)	N/A	



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Treat onsite wastewater (prior to receiving water discharge) to	0
provide the required removal efficiency ≥ (%)	
If discharging to domestic sewage treatment plant, provide the	0
required onsite wastewater removal efficiency of \geq (%)	
Organisation measures to prevent/limit release from site	•
Conditions and measures related to municipal sewage treatm	ent plant
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	
Total efficiency of removal from wastewater after onsite and	96.2
offsite (domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (M _{Safe}) based on release	120
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
C14:	-4 - f J' 1

Conditions and measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/of national regulations. [ETW3]

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].



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Scenario 17: Use as Release Agents or Binders – Industrial

Scenario 17: Use as Release Agents or Dinders – Industrial			
Section 1 Exposure Scen	nario Title		
Title			
Use as Release Agents or Binders – Industrial GES 10.1			
Use Descriptor			
Sector(s) of Use	3		
Process Categories		1, 2, 3, 4, 6, 7, 8b, 10, 14	
Environmental Release Ca	ategories	4	
Specific Environmental R		ESVOC 4.10a.v1	
Processes, tasks, activitie	<u> </u>		
		s including material transfers, mixing, application	
		orming and casting, and handling of waste.	
Assessment Method	(4511116), 1110414 10	or many and casting, and nanding or master	
See Section 3.			
	anditions and ris	k management measures	
		k management measures	
Section 2.1 Control of w	orker exposure		
Product characteristics	liania na ana		
Physical form of	Liquia, vapour p	oressure 0.5 - 10kPa at STP [OC4]	
product			
Concentration of	•	age substance in the product up to 100%	
substance in product	,	differently) [G13]	
Amounts used	No Limit		
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]		
duration of use			
Other Operational	Assumes use a	t not > 20oC above ambient [G15]	
Conditions affecting			
worker exposure			
·	Assumes a good basic standard of occupational hygiene has		
	been implemen	ted [G1]	
Contributing Scenarios	_	anagement Measures and Operating Conditions	
	(only required co	ontrols to demonstrate safe use listed)	
Material transfers	No specific mea	asures identified[EI18]	
[CS3] PROC1		• •	
Material transfers	No specific measures identified[EI18]		
[CS3] PROC2	,		
Material transfers	No specific measures identified[EI18]		
[CS3] PROC3			
Drum/batch transfers	No specific measures identified[EI18]		
[CS8] PROC8b	Tro specific measures identifica[E110]		
Mixing operations	No specific measures identified[EI18]		
(closed systems)			
[CS29] PROC3			
Mixing operations	No specific mea	asures identified[EI18]	
(open systems) [CS30]			
PROC4			
Mold forming [CS31]	No specific mea	asures identified[EI18]	
PROC14		203.00 .30///////////	
	1		



Casting operations	No specific measures identified[EI18]	
[CS32](open systems)		
[CS108]Operation is		
carried out at elevated		
temperature (> then		
20°C above ambient		
temperature) [OC7		
]Aerosol generation		
due to elevated		
process temperature		
[OC25] PROC6		
Spraying	No specific measures identified[EI18]	
[CS10]Machine [CS33]		
PROC7		
Manual applications	No specific measures identified[El18]	
e.g. brushing, rolling		
[CS13] PROC10		
Spraying	No specific measures identified[EI18]	
[CS10]Manual [CS34]	, ,	
PROC7		
Material storage	No specific measures identified[EI18]	
[CS67] PROC1	, ,	
Material storage	No specific measures identified[EI18]	
[CS67] PROC2	, ,	
Section 2.2 Control of en	nvironmental exposure	
Product characteristics	-	
Substance is complex UV	CB [PrC3]. Predominantly hydrophobic	[PrC4a].
Amounts used		
Fraction of EU tonnage us	sed in region	0.1
Regional use tonnage (ton		35
Fraction of Regional tonna	•	1
Annual site tonnage (tonn	Č ,	35
Maximum daily site tonna	1700	
Frequency and duration		
Continuous release [FD2]		
Emission days (days/year)		20
	ot influenced by risk management	
Local freshwater dilution	<u> </u>	10
Local marine water dilution		100
Other given operational	conditions affecting environmental exp	osure
Release fraction to air from	m process (initial release prior to RMM)	1.0
Release fraction to wastev	vater from process (initial release prior to	3.0e-7
RMM)	1	
	om process (initial release prior to RMM)	
Technical conditions and	d measures at process level (source) to p	prevent release
	cross sites thus conservative process relea	
Technical onsite condition	ons and measures to reduce or limit disc	charges, air emissions



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and releases to soil		
Risk from environment	tal exposure is driven by Agricultural Soil [TCR1f].
	ndissolved substance to or recover from ons	site wastewater [TCR14].
No wastewater treatme	-	
Treat air emission to pr	rovide a typical removal efficiency of (%)	80
Treat onsite wastewate	r (prior to receiving water discharge) to	0
provide the required re	moval efficiency ≥ (%)	
If discharging to dome	stic sewage treatment plant, provide the	0
required onsite wastew	rater removal efficiency of \geq (%)	
Organisation measure	es to prevent/limit release from site	
Conditions and measures related to municipal sewage treatment plant		
Estimated substance re	moval from wastewater via domestic	96.2
sewage treatment (%)		
•	oval from wastewater after onsite and	96.2
offsite (domestic treatn	nent plant) RMMs (%)	
Maximum allowable si	te tonnage (M _{Safe}) based on release	19000000
	ater treatment removal (kg/d)	
	age treatment plant flow (m ³ /d)	2000
Conditions and measures related to external treatment of waste for disposal		
External treatment and	disposal of waste should comply with appl	icable local and/of national
regulations. [ETW3]		
Conditions and measu	ures related to external recovery of waste	•
External recovery and	recycling of waste should comply with appl	licable local and/or national
regulations. [ERW1]		
1 4 1 11/4 1 1 1 1 1 1		4:C:-1001DM14 '

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite



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technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 18: Use as Release Agents or Binders – Professional

Title Use as Release Agents or Binders – Professional GES 10.2 Use Descriptor Sector(s) of Use 22 Process Categories 1, 2, 3, 4, 6, 8b, 10, 11, 14 Environmental Release Categories 8a, 8d Specific Environmental Release Category ESVOC 8.10b.v1 Processes, tasks, activities covered Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, 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 Concentration of Substance in product (unless stated differently) [G13] Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios No specific measures identified[E118] Material transfers (CS3](closed systems) (CS31)7] PROC2 No specific measures identified[E118] No specific measures identified[E118] No specific measures identified[E118]	Section 1 Exposure Scen	nario Title		
Use Descriptor Sector(s) of Use 22 Process Categories 1, 2, 3, 4, 6, 8b, 10, 11, 14 Environmental Release Categories 8a, 8d Specific Environmental Release Category ESVOC 8.10b.v1 Processes, tasks, activities covered Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, 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 Concentration of substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS3](closed	Title			
Use Descriptor Sector(s) of Use 22 Process Categories 1, 2, 3, 4, 6, 8b, 10, 11, 14 Environmental Release Categories 8a, 8d Specific Environmental Release Category ESVOC 8.10b.v1 Processes, tasks, activities covered Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, 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 Concentration of substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS3](closed	Use as Release Agents or Binders – Professional GES 10.2			
Process Categories Environmental Release Categories Specific Environmental Release Category ESVOC 8.10b.v1 Processes, tasks, activities covered Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste. Assessment Method See Section 2 Operational conditions and risk management measures Section 2.1 Control of worker exposure Product characteristics Physical form of product Concentration of substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes use at not > 200C above ambient [G15] Contributing Scenarios Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Drum/batch transfers No specific measures identified[E118] No specific measures identified[E118] No specific measures identified[E118] No specific measures identified[E118]	Use Descriptor			
Environmental Release Categories Specific Environmental Release Category Processes, tasks, activities covered Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste. Assessment Method See Section 2. Operational conditions and risk management measures Section 2.1 Control of worker exposure Product characteristics Physical form of product Concentration of substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[E118] No specific measures identified[E118] No specific measures identified[E118]	Sector(s) of Use	22		
Environmental Release Categories Specific Environmental Release Category Processes, tasks, activities covered Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste. Assessment Method See Section 2. Operational conditions and risk management measures Section 2.1 Control of worker exposure Product characteristics Physical form of product Concentration of substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[E118] No specific measures identified[E118] No specific measures identified[E118]	Process Categories		1, 2, 3, 4, 6, 8b, 10, 11, 14	
Specific Environmental Release Category ESVOC 8.10b.v1	Environmental Release Ca	ategories		
Processes, tasks, activities covered Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, 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 Concentration of substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes use at not > 20oC above ambient [G15] Contributing Scenarios Assumes a good basic standard of occupational hygiene has been implemented [G1] Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS3107] PROC2 Material transfers [CS3](closed systems) [CS3107] PROC3 Drum/batch transfers No specific measures identified[E118]				
Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste. Assessment Method Sec Section 3. Section 2 Operational conditions and risk management measures Section 2.1 Control of worker exposure Product characteristics Physical form of product Concentration of Substance in product (unless stated differently) [G13] No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes use at not > 20oC above ambient [G15] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[E118]				
by spraying, brushing, 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 Concentration of substance in product Amounts used Covers percentage substance in the product up to 100% (unless stated differently) [G13] No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes use at not > 20oC above ambient [G15] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[El18]			s including material transfers, mixing, application	
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 Concentration of substance in product Amounts used Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18] No specific measures identified[EI18] No specific measures identified[EI18]	by spraying, brushing, and	d handling of wast	te.	
Section 2 Operational conditions and risk management measures Section 2.1 Control of worker exposure Product characteristics Physical form of product Concentration of substance in product (unless stated differently) [G13] Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers [CS3](closed systems) [CS107] PROC3	Assessment Method			
Product characteristics Physical form of product Concentration of substance in product Amounts used Corresponditions of substance in product Concentration of substance in product Concentration of substance in product Amounts used Covers percentage substance in the product up to 100% (unless stated differently) [G13] No Limit Covers daily exposures up to 8 hours (unless stated) [G2] Conditions affecting worker exposure Assumes use at not > 200C above ambient [G15] Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Contribut	See Section 3.			
Product characteristics Physical form of product Concentration of substance in product Amounts used Corresponditions of substance in product Concentration of substance in product Concentration of substance in product Amounts used Covers percentage substance in the product up to 100% (unless stated differently) [G13] No Limit Covers daily exposures up to 8 hours (unless stated) [G2] Conditions affecting worker exposure Assumes use at not > 200C above ambient [G15] Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Contribut	Section 2 Operational co	onditions and ris	k management measures	
Product characteristics Physical form of product Concentration of substance in product Amounts used Covers percentage substance in the product up to 100% (unless stated differently) [G13] No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC3 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[E118] Liquid, vapour pressure 0.5 - 10kPa at STP [OC4] Covers percentage substance in the product up to 100% (unless stated) if the product up to 100% (unless stated) if the product up to 100% (unless stated) if E13] Assumes at not > 200C above ambient [G15] Assumes a good basic standard of occupational hygiene has been implemented [G1] Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) No specific measures identified[E118] No specific measures identified[E118] No specific measures identified[E118]	1			
Concentration of substance in product (unless stated differently) [G13] Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers Covers percentage substance in the product up to 100% (unless stated differently) [G13] Covers daily exposures up to 8 hours (unless stated) [G2] Assumes use at not > 20oC above ambient [G15] Assumes a good basic standard of occupational hygiene has been implemented [G1] Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) No specific measures identified[E118] No specific measures identified[E118]	Product characteristics	-		
Concentration of substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers Covers percentage substance in the product up to 100% (unless stated differently) [G13] Covers daily exposures up to 8 hours (unless stated) [G2] Assumes use at not > 20oC above ambient [G15] Assumes a good basic standard of occupational hygiene has been implemented [G1] Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) No specific measures identified[E118] No specific measures identified[E118] No specific measures identified[E118]	Physical form of	Liquid, vapour p	oressure 0.5 - 10kPa at STP [OC4]	
Substance in product Amounts used No Limit Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[E118]	product			
Amounts used Frequency and duration of use Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Concentration of	Covers percent	age substance in the product up to 100%	
Covers daily exposures up to 8 hours (unless stated) [G2] Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Contributing Scenarios Contributing Scenarios Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[E118]	substance in product	(unless stated of	differently) [G13]	
Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Amounts used	7,		
Other Operational Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]		
Conditions affecting worker exposure Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[E118]	duration of use			
Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Other Operational	Assumes use a	t not > 20oC above ambient [G15]	
Assumes a good basic standard of occupational hygiene has been implemented [G1] Contributing Scenarios Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed) Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Conditions affecting			
been implemented [G1] Contributing Scenarios Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	worker exposure			
Contributing Scenarios Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)		_	, , , , , , , , , , , , , , , , , , , ,	
(only required controls to demonstrate safe use listed) Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Contributing Scenarios			
Material transfers [CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]		-	· ·	
[CS3](closed systems) [CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Material transfers		-	
[CS107] PROC1 Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]		Tto specific measures identificate roj		
Material transfers [CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18] No specific measures identified[EI18]	,			
[CS3](closed systems) [CS107] PROC2 Material transfers [CS3](closed systems) [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Material transfers	No specific measures identified[FI18]		
[CS107] PROC2 Material transfers No specific measures identified[EI18] [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	[CS3](closed systems)	To openio medalico lacitimod[E110]		
Material transfers No specific measures identified[EI18] [CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	[CS107] PROC2			
[CS3](closed systems) [CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	Material transfers	No specific mea	asures identified[EI18]	
[CS107] PROC3 Drum/batch transfers No specific measures identified[EI18]	[CS3](closed systems)			
Drum/batch transfers No specific measures identified[EI18]	[CS107] PROC3			
	Drum/batch transfers	No specific mea	asures identified[EI18]	
	[CS8] PROC8b			



Mixing operations	No specific measures identified[EI18]		
(closed systems)			
[CS29] PROC3			
Mixing operations	No specific measures identified[El18]		
(open systems) [CS30]			
PROC4			
Mold forming [CS31]	No specific measures identified[El18]		
PROC14			
Casting operations	Provide enhanced mechanical ventila	ation by mechanical	
[CS32](open systems)	means [E48]		
[CS108]Operation is			
carried out at elevated			
temperature (> then			
20°C above ambient			
temperature) [OC7] PROC6			
Spraying	Provide enhanced mechanical ventila	ation by mechanical	
[CS10]Machine [CS33]	means [E48]		
PROC11			
Manual applications	No specific measures identified[EI18]		
e.g. brushing, rolling			
[CS13] PROC10			
Spraying	Provide enhanced mechanical ventilation by mechanical		
[CS10]Manual [CS34]	means [E48]		
PROC11			
Material storage	No specific measures identified[El18]		
[CS67] PROC1	NI- and altinum and a second side of the second sid		
Material storage	No specific measures identified[EI18]		
[CS67] PROC2 Section 2.2 Control of environmental exposure			
1	environmentai exposure		
Product characteristics	ICD [DuC2] Duodomin anthy hydronhahia	ID ₂ C(4.c)	
	/CB [PrC3]. Predominantly hydrophobic	[PrC4a].	
Amounts used Fraction of EU tonnage u	and in ragion	0.1	
		0.6	
Regional use tonnage (tonnes/year) Fraction of Regional tonnage used locally		0.0005	
Annual site tonnage (tonnes/year) 0.0003			
Maximum daily site tonnage (kg/day) 0.00082 Frequency and duration of use			
Continuous release [FD2			
Emission days (days/year		365	
	not influenced by risk management	000	
		10	
	Local freshwater dilution factor10Local marine water dilution factor100		
	Other given operational conditions affecting environmental exposure		
other given operational conditions affecting environmental exposure			
Release fraction to air fro	om process (initial release prior to RMM)	0.95	
	water from process (initial release prior to		
Trefease fraction to waste	water from process (finitial resease prior to	0.023	



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RMM)		
Release fraction to soil from process (initial release prior to RMM) 0.025		
Technical conditions and measures at process level (source) to p	prevent release	
Common practices vary across sites thus conservative process relea	se estimates used [TCS1].	
Technical onsite conditions and measures to reduce or limit discharges, air emissions		
and releases to soil		
Risk from environmental exposure is driven by Freshwater [TCR1a	1].	
No wastewater treatment required [TCR6].		
Treat air emission to provide a typical removal efficiency of (%)	0	
Treat onsite wastewater (prior to receiving water discharge) to	0	
provide the required removal efficiency ≥ (%)		
If discharging to domestic sewage treatment plant, provide the	0	
required onsite wastewater removal efficiency of \geq (%)		
Organisation measures to prevent/limit release from site		
Conditions and measures related to municipal sewage treatment plant		
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Total efficiency of removal from wastewater after onsite and	96.2	
offsite (domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (M _{Safe}) based on release	12	
following total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m ³ /d)	2000	
Conditions and measures related to external treatment of waste for disposal		
External treatment and disposal of waste should comply with applicable local and/of national		
regulations. [ETW3]		
Conditions and measures related to external recovery of waste		

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 - "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37]

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

4.2. Environment



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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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 19: Use as a Fuel – Industrial

Section 1 Exposure Scenario Title

Title				
Use as a Fuel – Industrial GES 12.1				
Use Descriptor				
Sector(s) of Use		3		
Process Categories		1, 2, 3, 8a, 8b, 16		
Environmental Release Ca	ategories	7		
Specific Environmental R	elease Category	ESVOC 7.12a.v1		
Processes, tasks, activition	es covered			
Covers the use as a fuel (c	or fuel additives a	nd additive components) and includes activities		
associated with its transfer	r, use, equipment	maintenance and handling of waste.		
Assessment Method				
See Section 3.				
Section 2 Operational co	onditions and ris	k management measures		
Section 2.1 Control of w	orker exposure			
Product characteristics				
Physical form of	Liquid, vapour p	oressure 0.5 - 10kPa at STP [OC4]		
product				
Concentration of	Covers percentage substance in the product up to 100%			
substance in product	(unless stated differently) [G13]			
Amounts used	No Limit			
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]			
duration of use		, , , , , , , , , , , , , , , , , , , ,		
Other Operational	Assumes use at not > 20oC above ambient [G15]			
Conditions affecting	. ,			
worker exposure				
	Assumes a good been implement	od basic standard of occupational hygiene has		
Contributing Scenarios		anagement Measures and Operating Conditions		
Contributing Secharios	(only required controls to demonstrate safe use listed)			
Bulk transfers [CS14] PROC8b	No specific measures identified[EI18]			
Drum/batch transfers [CS8] PROC8b	No specific measures identified[EI18]			
General exposures (closed systems) [CS15]Use in contained batch	No specific mea	asures identified[EI18]		



processes [CS37] PROC1					
General exposures	No specific measures identified[EI18]				
· ·	ino specific measures identified[E110]				
(closed systems)					
[CS15]Use in					
contained batch					
processes [CS37]					
PROC2					
General exposures	No specific measures identified[EI18]				
(closed systems)					
[CS15]Use in					
contained batch					
processes [CS37]					
PROC3					
General exposures	No specific measures identified[EI18]				
(closed systems)	The openine medicarde identificate in the				
[CS15] PROC1					
General exposures	No specific measures identified[EI18]				
(closed systems)	No specific measures identified[E110]				
,					
[CS15] PROC2					
General exposures	No specific measures identified[EI18]				
(closed systems)					
[CS15](closed					
systems) [CS107]					
PROC16					
General exposures	No specific measures identified[EI18]				
(closed systems)	·				
[CS15](closed					
systems) [CS107]					
PROC3					
Equipment cleaning	No specific measures identified[EI18]				
and maintenance					
[CS39] PROC8a					
Vessel and container	No specific measures identified[EI18]				
cleaning [CS103]	,				
PROC8a					
Material storage	No specific measures identified[EI18]				
[CS67] PROC1	TVO SPOOMO MEASURES INCHINICU[ETTO]				
	No appoisio magauras identifical E1401				
Material storage	No specific measures identified[El18]				
[CS67] PROC2					
Section 2.2 Control of e	nvironmental exposure				
Product characteristics	CD (D CO) D 1 1 1 1 1 1 1 1 1 1 CD CO 1				
	CB [PrC3]. Predominantly hydrophobic [PrC4a].				
Amounts used					
Fraction of EU tonnage us					
Regional use tonnage (tonnes/year) 10					
Fraction of Regional tonnage used locally 1					
Annual site tonnage (tonn	Annual site tonnage (tonnes/year) 10				
					



Maximum daily site tonnage (kg/day)	500
Frequency and duration of use	
Continuous release [FD2].	
Emission days (days/year)	20
Environmental factors not influenced by risk management	
Local freshwater dilution factor	10
Local marine water dilution factor	100
Other given operational conditions affecting environmental e	
o their given operational containing an even of their containing their containing the containing	Aposu10
Release fraction to air from process (initial release prior to RMM	I) 0.05
Release fraction to wastewater from process (initial release prior RMM)	to 0.00001
Release fraction to soil from process (initial release prior to RMN	M) 0
Technical conditions and measures at process level (source) to	*
Common practices vary across sites thus conservative process rel	
Technical onsite conditions and measures to reduce or limit d	
and releases to soil	inscriar ges, arr emissions
Risk from environmental exposure is driven by Freshwater Sedin	nent [TCR1h]
No wastewater treatment required [TCR6].	ment [Text10].
Treat air emission to provide a typical removal efficiency of (%)	95
Treat onsite wastewater (prior to receiving water discharge) to	0
provide the required removal efficiency \geq (%)	O
If discharging to domestic sewage treatment plant, provide the	0
	V
required onsite wastewater removal efficiency of ≥ (%)	
Organisation measures to prevent/limit release from site	
Conditions and measures related to municipal sewage treatm	ent plant
	0.62
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	06.2
Total efficiency of removal from wastewater after onsite and	96.2
offsite (domestic treatment plant) RMMs (%)	2 < 0.000
Maximum allowable site tonnage (M_{Safe}) based on release	2600000
following total wastewater treatment removal (kg/d)	2000
Assumed domestic sewage treatment plant flow (m³/d)	2000
Conditions and measures related to external treatment of was	
Combustion emissions limited by required exhaust emission cont	trols [ETW1]. Combustion
emissions considered in regional exposure assessment [ETW2].	
Conditions and measures related to external recovery of wast	
This substance is consumed during use and no waste of the substance	
Additional information on the basis for the allocation of the inc	
contained in PETRORISK file in IUCLID Section 13 – "Local	CSR" worksheet.
Section 3 Exposure Estimation	
3.1. Health	
The ELE TOC TRA tool has been used to estimate workplace ex	posures unless otherwise
indicated. [G21].	
3.2. Environment	
The Hydrocarbon Block Method has been used to calculate envir	onmental exposure with the
Petrorisk model [EE2].	



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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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 20: Use as a Fuel – Professional

Section 1 Exposure Scer	ario Title		
Title			
Use as a Fuel – Profession	al GES 12.2		
Use Descriptor			
Sector(s) of Use		22	
Process Categories		1, 2, 3, 8a, 8b, 16	
Environmental Release Ca	ategories	9a, 9b	
Specific Environmental R	elease Category	ESVOC 9.12b.v1	
Processes, tasks, activitie	es covered		
		nd additive components) and includes activities maintenance and handling of waste.	
Assessment Method	i, use, equipment	maintenance and nanding of waste.	
See Section 3.			
	onditions and ris	k management measures	
Section 2.1 Control of w		in munugument mengumes	
Product characteristics	,		
Physical form of product	Liquid, vapour _l	oressure 0.5 - 10kPa at STP [OC4]	
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently) [G13]		
Amounts used	No Limit		
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]		
Other Operational Conditions affecting worker exposure	Assumes use a	t not > 20oC above ambient [G15]	
	Assumes a goo	nd basic standard of occupational hygiene has	



	1	
	been implemented [G1]	
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)	
Bulk transfers [CS14] PROC8b	No specific measures identified[EI18]	
Drum/batch transfers [CS8] PROC8b	No specific measures identified[E	
General exposures [CS1] PROC8b	No specific measures identified[El	18]
General exposures (closed systems) [CS15] PROC1	No specific measures identified[E	118]
General exposures (closed systems) [CS15] PROC2	No specific measures identified[E	18]
General exposures (closed systems) [CS15](closed systems) [CS107] PROC3	No specific measures identified[E	18]
General exposures (closed systems) [CS15](closed systems) [CS107] PROC16	No specific measures identified[E	118]
Equipment cleaning and maintenance [CS39] PROC8a	No specific measures identified[E	118]
Vessel and container cleaning [CS103] PROC8a	No specific measures identified[E	18]
Material storage [CS67] PROC1	No specific measures identified[E	18]
Section 2.2 Control of e	nvironmental exposure	
Product characteristics		
1	CB [PrC3]. Predominantly hydrophol	oic [PrC4a].
Amounts used		
Fraction of EU tonnage u		0.1
Regional use tonnage (tonnes/year)		10
Fraction of Regional tonnage used locally		0.0005
Annual site tonnage (tonnes/year)		0.005
Maximum daily site tonna	nximum daily site tonnage (kg/day)	
Frequency and duration		
Continuous release [FD2]		
Emission days (days/year) 365		
	ot influenced by risk management	
Local freshwater dilution		10
		1



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<u></u>		Trans		
Local marine water dilu		100		
Other given operational conditions affecting environmental exposure				
		1		
	from process (initial release prior to RMM			
	tewater from process (initial release prior	to 0.00001		
RMM)				
	from process (initial release prior to RMM			
	and measures at process level (source) to			
	y across sites thus conservative process rel-			
	itions and measures to reduce or limit d	ischarges, air emissions		
and releases to soil				
	al exposure is driven by Freshwater [TCR	1a].		
No wastewater treatme				
	rovide a typical removal efficiency of (%)	0		
	r (prior to receiving water discharge) to	0		
provide the required re-				
	stic sewage treatment plant, provide the	0		
	ater removal efficiency of ≥ (%)			
Organisation measure	es to prevent/limit release from site			
Conditions and measu	res related to municipal sewage treatm	ent plant		
Estimated substance re-	moval from wastewater via domestic	96.2		
sewage treatment (%)				
Total efficiency of rem	oval from wastewater after onsite and	96.2		
offsite (domestic treatn				
Maximum allowable si	te tonnage (M _{Safe}) based on domestic	210		
sewage treatment relea				
	rage treatment plant flow (m ³ /d)	2000		
	ires related to external treatment of was			
Combustion emissions	limited by required exhaust emission cont	rols [ETW1]. Combustion		
emissions considered in	n regional exposure assessment [ETW2].			
Conditions and measu	ires related to external recovery of wast	e		
	amed during use and no waste of the substa			
Additional information	on the basis for the allocation of the ind	lentified OCs and RMMs is		
contained in PETROR	ISK file in IUCLID Section 13 – "LocalO	CSR" worksheet.		
Section 3 Exposure E	stimation			
3.1. Health				
The ELE TOC TRA to	ol has been used to estimate workplace exp	posures unless otherwise		
indicated. [G21].				
3.2. Environment				
The Hydrocarbon Bloc	k Method has been used to calculate environ	onmental exposure with the		
Petrorisk model [EE2].				
Section 4 Guidance to	o check compliance with the Exposure S	cenario		
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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

[G32]



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Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in factsheet for ESVOC SpERC 9.12b.v1. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 21: Use as a Fuel – Consumer

Section 1 Exposure Scer	ario Title	9		
Title				
Use as a Fuel – Consumer	Use as a Fuel – Consumer GES 12.3			
Use Descriptor				
Sector(s) of Use			21	
Product Categories			13	
Environmental Release Ca	ategories		9a, 9b	
Specific Environmental R	elease Cat	egory	ESVOC 9.12c.v1	
Processes, tasks, activitie	es covered	l		
Covers consumer uses in f	fuels			
Assessment Method				
See Section 3.				
Section 2 Operational co	onditions	and ris	k management measures	
Section 2.1 Control of co	onsumer e	exposui	re	
Product characteristics				
Physical form of	Liquid, v	apour p	oressure 0.5 - 10kPa at STP [OC4]	
product				
Concentration of	Unless otherwise stated, cover concentrations up to 100%			
substance in product	[ConsOC1]			
Amounts used	Unless otherwise stated, covers use amounts up to13800g			
	[ConsOC2]; covers skin contact area up to 857.5cm2			
<u> </u>	[ConsOC5]			
Frequency and	Unless otherwise stated, covers use frequency up to 1 times			
duration of	per day [ConsOC4]; covers exposure up to 8 hours per event			
use/exposure	[ConsOC14]			
Other Operational	Unless otherwise stated assumes use at ambient			
Conditions affecting	temperatures [ConsOC15]; assumes use in a 20 m3 room			
exposure	[ConsOC11]; assumes use with typical ventilation			
	[ConsOC8].			
Product Category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)			
PC13:FuelsLiquid -	OC		s otherwise stated, covers concentrations up	
subcategories added:			% [ConsOC1]; covers use up to 52	
Automotive Refuelling	days/year[ConsOC3]; covers use up to 1 time/on			





	RMM	day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14]; No specific RMMs developed beyong those OCs
D040 E	00	stated
PC13:FuelsLiquid - subcategories added: Scooter Refuelling	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 3750g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.03hr/event[ConsOC14];
	RMM	No specific RMMs developed beyong those OCs stated
PC13:FuelsLiquid - subcategories added: Garden Equipment - Use	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 750g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14];
	RMM	No specific RMMs developed beyong those OCs stated
PC13:FuelsLiquid (subcategories added): Garden Equipment - Refueling		Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 420.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 750g [ConsOC2]; Covers use in a one car garage (34m3) under typcial ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.03hr/event[ConsOC14];
	RMM	No specific RMMs developed beyong those OCs stated
PC13:FuelsLiquid (subcategories added): Home space heater fuel	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 3000g [ConsOC2]; covers use under typical household ventilation [ConsOC8];



	_		
		covers use in room size of 2	
		each use event, covers exp	osure up to
		0.03hr/event[ConsOC14];	
	RMM	No specific RMMs develope	ed beyong those OCs
50/05 1 11 11		stated	
PC13:FuelsLiquid -	OC	Unless otherwise stated, co	•
subcategories added:		to 100% [ConsOC1]; covers	•
Lamp oil		days/year[ConsOC3]; cover	
		day of use[ConsOC4]; cove	
		to 210.00 cm2 [ConsOC5];	
		covers use amounts up to 1	
		use under typical household covers use in room size of 2	
		each use event, covers exp	
		0.01hr/event[ConsOC14];	osure up to
	RMM	No specific RMMs develope	ad havong those OCs
	IXIVIIVI	stated	d beyong mose oos
Section 2.2 Control of e	nvironm		
Product characteristics	11 4 11 ()11111	entar exposure	
	CB [PrC	3]. Predominantly hydrophobic	[PrC4a]
Amounts used	СБ[ГТС	5]. Tredominantly hydrophobic	[[1] [[-1]]
Fraction of EU tonnage us	end in rec	rion	0.1
Regional use tonnage (tor			10
Fraction of Regional tonn	-		0.0005
ŭ		locally	0.005
Annual site tonnage (tonnes/year) Maximum daily site tonnage (kg/day)			0.014
Frequency and duration		<u> </u>	0.014
Continuous release [FD2]			
Emission days (days/year)			365
		nced by risk management	000
Environmental factors not influenced by risk management Local freshwater dilution factor		10	
Local marine water dilution factor		100	
		ns affecting environmental exp	I.
other gryen operational	COHUICIO		, OD 42 C
Release fraction to air from	m proces	s (initial release prior to RMM)	0.001
Release fraction to wastewater from process (initial release prior to			0.00001
RMM)			
Release fraction to soil from	om proce	ss (initial release prior to RMM)	0.00001
		to municipal sewage treatmen	•
		is driven by Freshwater [STP7a	
Estimated substance removal from wastewater via domestic			96.2
sewage treatment (%)			
Maximum allowable site tonnage (M_{Safe}) based on release 210			210
following total wastewater treatment removal (kg/d)			
Assumed domestic sewag	Assumed domestic sewage treatment plant flow (m ³ /d)		
		to external treatment of waste	
Combustion emissions lin	nited by 1	required exhaust emission contro	ls [ETW1]. Combustion
emissions considered in re	egional e	xposure assessment [ETW2].	



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Conditions and measures related to external recovery of waste

This substance is consumed during use and no waste of the substance is generated. [ERW3]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report no. 107 and the Chapter R15 of the IR&CSA TGD. Where exposure determinants differ to these sources, then they are indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. 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 dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 22: Use as Functional Fluids – Industrial

Section 1 Exposure Scenario Title			
Title			
Use as Functional Fluids -	- Industrial GES	13.1	
Use Descriptor			
Sector(s) of Use		3	
Process Categories		1, 2, 4, 8a, 8b, 9	
Environmental Release Ca	ategories	7	
Specific Environmental Re	elease Category	ESVOC 7.13a.v1	
Processes, tasks, activitie	es covered		
Use as functional fluids e.	g. cable oils, tran	sfer oils, coolants, insulators, refrigerants,	
hydraulic fluids in industri	hydraulic fluids in industrial equipment including maintenance and related material transfers		
Assessment Method	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	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]		
product			
Concentration of	Covers percentage substance in the product up to 100%		



	T
substance in product	(unless stated differently) [G13]
Amounts used	No Limit
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]
Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient [G15]
	Assumes a good basic standard of occupational hygiene has been implemented [G1]
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers [CS14](closed systems) [CS107] PROC1	No specific measures identified[EI18]
Bulk transfers [CS14](closed systems) [CS107] PROC2	No specific measures identified[EI18]
Drum/batch transfers [CS8] PROC8b	No specific measures identified[EI18]
Filling of articles/equipment [CS84](closed systems) [CS107] PROC9	No specific measures identified[EI18]
Filling / preparation of equipment from drums or containers. [CS45] PROC8a	No specific measures identified[EI18]
General exposures (closed systems) [CS15] PROC2	No specific measures identified[EI18]
General exposures (open systems) [CS16] PROC4	No specific measures identified[EI18]
Remanufacture of reject articles [CS19] PROC9	No specific measures identified[EI18]
Equipment maintenance [CS5] PROC8a	No specific measures identified[EI18]
Material storage [CS67] PROC1	No specific measures identified[EI18]
Material storage [CS67] PROC2	No specific measures identified[EI18]
Section 2.2 Control of en	nvironmental exposure
Product characteristics	



Substance is complex UVCB [PrC3]. Predominantly hydrophobic	[PrC4a].
Amounts used	
Fraction of EU tonnage used in region	0.1
Regional use tonnage (tonnes/year)	5.0
Fraction of Regional tonnage used locally	1
Annual site tonnage (tonnes/year)	5.0
Maximum daily site tonnage (kg/day)	250
Frequency and duration of use	
Continuous release [FD2].	
Emission days (days/year)	20
Environmental factors not influenced by risk management	
Local freshwater dilution factor	10
Local marine water dilution factor	100
Other given operational conditions affecting environmental exp	osure
Release fraction to air from process (initial release prior to RMM)	0.01
Release fraction to wastewater from process (initial release prior to	0.000003
RMM)	
Release fraction to soil from process (initial release prior to RMM)	0.001
Technical conditions and measures at process level (source) to p	prevent release
Common practices vary across sites thus conservative process relea	se estimates used [TCS1].
Technical onsite conditions and measures to reduce or limit dis-	charges, air emissions
and releases to soil	
Risk from environmental exposure is driven by Freshwater [TCR1a	1].
Prevent discharge of undissolved substance to or recover from onsi	te wastewater [TCR14].
No wastewater treatment required [TCR6].	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to	0
provide the required removal efficiency ≥ (%)	
If discharging to domestic sewage treatment plant, provide the	0
required onsite wastewater removal efficiency of \geq (%)	
Organisation measures to prevent/limit release from site	
Conditions and measures related to municipal sewage treatmen	t plant
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	
Total efficiency of removal from wastewater after onsite and	96.2
offsite (domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (M_{Safe}) based on release	2700000
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
Conditions and measures related to external treatment of waste	e for disposal
External treatment and disposal of waste should comply with applic	cable local and/of national
regulations. [ETW3]	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with application	cable local and/or national
regulations. [ERW1]	
Additional information on the basis for the allocation of the inder	ntified OCs and RMMs is



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contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 23: Use as Functional Fluids – Professional

Section 1 Exposure Scenario Title				
Title Title				
Use as Functional Fluids -	Use as Functional Fluids – Professional GES 13.2			
Use Descriptor				
Sector(s) of Use		22		
Process Categories		1, 2, 3, 8a, 9, 20		
Environmental Release Ca	itegories	9a, 9b		
Specific Environmental Re	elease Category	ESVOC 9.13b.v1		
Processes, tasks, activitie	Processes, tasks, activities covered			
Use as functional fluids e.	Use as functional fluids e.g. cable oils, transfer oils, insulators, refrigerants, hydraulic fluids in			
professional equipment including maintenance and related material transfers.				
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	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]			
product				
Concentration of	Covers percentage substance in the product up to 100%			
substance in product	(unless stated differently) [G13]			



Amounts used	No Limit		
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]		
Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient [G15]		
	Assumes a good basic standard of occupational hygiene has been implemented [G1]		
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)		
Drum/batch transfers [CS8] PROC8a	No specific measures identified[EI18]		
Transfer from/pouring from containers [CS22] PROC9	No specific measures identified[EI18]		
Filling / preparation of equipment from drums or containers. [CS45] PROC9	No specific measures identified[EI18]		
General exposures (closed systems) [CS15] PROC1	No specific measures identified[EI18]		
General exposures (closed systems) [CS15] PROC2	No specific measures identified[EI18]		
General exposures (closed systems) [CS15] PROC3	No specific measures identified[EI18]		
General exposures (open systems) [CS16] PROC20	No specific measures identified[EI18]		
General exposures (open systems) [CS16]Operation is carried out at elevated temperature (> then 20°C above ambient temperature) [OC7] PROC20	No specific measures identified[EI18]		
Remanufacture of reject articles [CS19] PROC9	No specific measures identified[EI18]		
Equipment maintenance [CS5] PROC8a	No specific measures identified[EI18]		
Material storage [CS67] PROC1	No specific measures identified[EI18]		
Material storage	No specific measures identified[EI18]		



[CS67] PROC2		
Section 2.2 Control of environmental exposure		
Product characteristics		
Substance is complex UVCB [PrC3]. Predominantly hydrophobic	e [PrC4a].	
Amounts used		
Fraction of EU tonnage used in region	0.1	
Regional use tonnage (tonnes/year)	4.0	
Fraction of Regional tonnage used locally	0.0005	
Annual site tonnage (tonnes/year)	0.002	
Maximum daily site tonnage (kg/day)	0.0055	
Frequency and duration of use		
Continuous release [FD2].		
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 ex	posure	
Release fraction to air from process (initial release prior to RMM)	0.05	
Release fraction to wastewater from process (initial release prior t		
RMM)	0 0.023	
Release fraction to soil from process (initial release prior to RMM	N 0 025	
Technical conditions and measures at process level (source) to		
Common practices vary across sites thus conservative process rele		
Technical onsite conditions and measures to reduce or limit di		
and releases to soil	scharges, an emissions	
Risk from environmental exposure is driven by Freshwater [TCR]	lal	
No wastewater treatment required [TCR6].		
Treat air emission to provide a typical removal efficiency of (%)	0	
Treat onsite wastewater (prior to receiving water discharge) to	0	
provide the required removal efficiency \geq (%)		
If discharging to domestic sewage treatment plant, provide the 0		
required onsite wastewater removal efficiency of \geq (%)		
Organisation measures to prevent/limit release from site		
Conditions and measures related to municipal sewage treatment	ent plant	
Constrons and measures related to manager so mage treatment	And President	
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Total efficiency of removal from wastewater after onsite and	96.2	
offsite (domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (M _{Safe}) based on release	77	
following total wastewater treatment removal (kg/d)		
	2000	
Assumed domestic sewage treatment plant flow (m³/d) Conditions and measures related to external treatment of was		
Assumed domestic sewage treatment plant flow (m ³ /d)	te for disposal	
Assumed domestic sewage treatment plant flow (m ³ /d) Conditions and measures related to external treatment of was	te for disposal	
Assumed domestic sewage treatment plant flow (m³/d) Conditions and measures related to external treatment of was External treatment and disposal of waste should comply with appl	te for disposal icable local and/of national	
Assumed domestic sewage treatment plant flow (m ³ /d) Conditions and measures related to external treatment of was external treatment and disposal of waste should comply with apple egulations. [ETW3]	te for disposal icable local and/of national	



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regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 24: Use as Functional Fluids – Consumer

Section 1 Exposure Scenario Title			
Title			
Use as Functional Fluids -	- Consumer GES	S 13.3	
Use Descriptor			
Sector(s) of Use		21	
Product Categories		16, 17	
Environmental Release Ca	ategories	9a, 9b	
Specific Environmental Release Category ESVOC 9.13c.v1			
Processes, tasks, activities covered			
Use of sealed items containing functional fluids e.g. transfer oils, hydraulic fluids, refrigerants			
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	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]		
product			
Concentration of	Unless otherwise stated, cover concentrations up to 100%		



	10 004	1	
substance in product	[ConsOC1]		
Amounts used	Unless otherwise stated, covers use amounts up to13800g		
	[ConsOC2]; covers skin contact area up to 857.5cm2		
	[ConsOC5]		
Frequency and	Unless oth	erwise stated, covers use fr	requency up to 1 times
duration of		onsOC4]; covers exposure	
use/exposure	[ConsOC1	-· · · · · · · · · · · · · · · · · · ·	
Other Operational	•	erwise stated assumes use	at amhient
Conditions affecting		es [ConsOC15]; assumes u	
exposure	•	1]; assumes use with typica	
exposure	[ConsOC8	-	ii verilialiori
Duedwat Catagory			od Omanatina Canditiana
Product Category	_	sk Management Measures ar red controls to demonstrate sa	•
PC16_n: Heat transfer	OC	Unless otherwise stated, c	,
fluidsLiquids		up to 100% [ConsOC1]; co	
IndiasLiquias		days/year[ConsOC3]; cove	
		day of use[ConsOC4]; cov	
		up to 468.00 cm2 [ConsOC	
		covers use amounts up to	0.1
		Covers use in a one car ga	o
		typcial ventilation [ConsOC	
		room size of 34m3[ConsO	- ·
		event, covers exposure up	to
		0.17hr/event[ConsOC14];	
	RMM	RMM No specific RMMs identified beyond those OCs	
		stated	
PC17_n: Hydraulic	OC Unless otherwise stated, covers concentrations		
fluidsLiquids	up to 100% [ConsOC1]; covers use up to 4		
		days/year[ConsOC3]; cove	ers use up to 1 time/on
		day of use[ConsOC4]; cove	ers skin contact area
		up to 468.00 cm2 [ConsOC	C5]; for each use event,
		covers use amounts up to	-:
		Covers use in a one car ga	
		typcial ventilation [ConsOC	
		room size of 34m3[ConsO	
		event, covers exposure up	
		0.17hr/event[ConsOC14];	
	RMM	No specific RMMs identifie	d hevond those OCs
	I SIVIIVI	stated	a boyona mose oos
Section 2.2 Control of e	nvironmenta		
Product characteristics			
•	CB [PrC3].	Predominantly hydrophobic [I	PrC4a].
Amounts used			
Fraction of EU tonnage us	Fraction of EU tonnage used in region 0.1		
Regional use tonnage (ton	Regional use tonnage (tonnes/year) 2.0		
Fraction of Regional tonnage used locally 0.0005			0.0005
Annual site tonnage (tonn	_).001
<u> </u>	Maximum daily site tonnage (kg/day) 0.0027		
o.0027			



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Frequency and duration of use	
Continuous release [FD2].	
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 exp	oosure
Release fraction to air from process (initial release prior to RMM)	0.05
Release fraction to wastewater from process (initial release prior to	0.025
RMM)	
Release fraction to soil from process (initial release prior to RMM)	0.025
Conditions and measures related to municipal sewage treatmen	it plant
Risk from environmental exposure is driven by Freshwater [STP7a].
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	
Maximum allowable site tonnage (M _{Safe}) based on release	40
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
Conditions and measures related to external treatment of waste	e for disposal
External treatment and disposal of waste should comply with applic	cable local and/of national
regulations, [ETW3]	

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report no. 107 and the Chapter R15 of the IR&CSA TGD. Where exposure determinants differ to these sources, then they are indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

[G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Further details on scaling and control technologies are provided in SpERC factsheet



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(http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 25: Use in Road and Construction Applications – Professional

Scenario 25: Use in Road and Construction Applications – Professional			
Section 1 Exposure Scenario Title			
Title Use in Road and Construction Applications – Professional GES 15.2			
Use Descriptor	tion rippiications	1101035101101 GES 13.2	
Sector(s) of Use		22	
Process Categories		8a, 8b, 10, 11, 13	
Environmental Release Ca	ategories	8d, 8f	
Specific Environmental R		ESVOC 8.15.v1	
Processes, tasks, activitie			
		in road and construction activities, including	
	•	cation of roofing and water-proofing membranes	
Assessment Method	• •		
See Section 3.			
Section 2 Operational co	onditions and ris	k management measures	
Section 2.1 Control of w	orker exposure		
Product characteristics			
Physical form of	Liquid, vapour p	oressure 0.5 - 10kPa at STP [OC4]	
product			
Concentration of		age substance in the product up to 100%	
substance in product		differently) [G13]	
Amounts used	No Limit		
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]		
duration of use			
Other Operational	Assumes use at not > 20oC above ambient [G15]		
Conditions affecting			
worker exposure	_		
	_	od basic standard of occupational hygiene has	
	been implemen		
Contributing Scenarios	_	anagement Measures and Operating Conditions	
		ontrols to demonstrate safe use listed)	
Drum/batch transfers	No specific mea	asures identified[EI18]	
[CS8]Non-dedicated			
facility [CS82]			
PROC8a Drum/batch transfers	No an acific management identifical/FI4.01		
[CS8]Dedicated facility	No specific measures identified[El18]		
[CS81] PROC8b			
Drum/batch transfers	Clear transfer lines prior to de-coupling [E39]		
[CS8]Dedicated facility	, , , , , , , , , , , , , , , , , , , ,		
[CS81]Operation is			
carried out at elevated			
temperature (> then			
20°C above ambient			



temperature) [OC7]			
PROC8b			
Manual applications	No specific measures identified[EI18]		
e.g. brushing, rolling			
[CS13] PROC10			
Spraying/fogging by	Ensure operation is undertaken outdo	oors [E69]Wear a	
machine application	respirator conforming to EN140 with	Type A filter or better.	
[CS25]Operation is	[PPE22]Ensure operatives are trained	d to minimise exposures	
carried out at elevated	[EI19]Stay upwind/keep distance fror	n source [El22]	
temperature (> then			
20°C above ambient			
temperature) [OC7]			
PROC11			
Spraying/fogging by	Ensure operation is undertaken outdo	oors [E69]	
machine application			
[CS25] PROC11			
Dipping, immersion	No specific measures identified[EI18]		
and pouring [CS4]			
PROC13			
Equipment cleaning	No specific measures identified[EI18]		
and maintenance			
[CS39] PROC8a			
Section 2.2 Control of e	nvironmental exposure		
Product characteristics			
Substance is complex UV	CB [PrC3]. Predominantly hydrophobic	[PrC4a].	
Amounts used			
Fraction of EU tonnage us	sed in region	0.1	
Regional use tonnage (ton	nes/year)	7.5	
Fraction of Regional tonn	age used locally	0.0005	
Annual site tonnage (tonn	es/year)	0.0038	
Maximum daily site tonna	• •	0.01	
Frequency and duration			
Continuous release [FD2]			
		365	
Environmental factors not influenced by risk management			
Local freshwater dilution	• 0	10	
Local marine water dilution factor		100	
Other given operational conditions affecting environmental exposure			
green green operational			
Release fraction to air from	m process (initial release prior to RMM)	0.95	
Release fraction to wastewater from process (initial release prior to 0.01			
RMM)	process (minum resease prior to		
Release fraction to soil from process (initial release prior to RMM) 0.04			
	d measures at process level (source) to p		
	cross sites thus conservative process relea		
Common practices vary at	cross sites thas comper varive process relea	se estimates asea [1 CD1].	



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Technical onsite conditions and measures to reduce or limit discharges, air emissions		
and releases to soil		
Risk from environmental exposure is driven by Freshwater [TCR1	a].	
No wastewater treatment required [TCR6].		
Treat air emission to provide a typical removal efficiency of (%)	0	
Treat onsite wastewater (prior to receiving water discharge) to	0	
provide the required removal efficiency ≥ (%)		
If discharging to domestic sewage treatment plant, provide the	0	
required onsite wastewater removal efficiency of \geq (%)		
Organisation measures to prevent/limit release from site	•	
Conditions and measures related to municipal sewage treatme	nt plant	
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Total efficiency of removal from wastewater after onsite and	96.2	
offsite (domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (M _{Safe}) based on release	150	
following total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m ³ /d)	2000	
Conditions and measures related to external treatment of wast	te for disposal	
External treatment and disposal of waste should comply with appl	icable local and/of national	
regulations. [ETW3]		
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with appl	licable local and/or national	

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can



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be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 26: Use in Laboratories – Industrial

Scenario 26: Use in L		naustriai		
Section 1 Exposure Scen	nario Title			
Title				
Use in Laboratories – Industrial GES 17.1				
Use Descriptor		T		
Sector(s) of Use		3		
Process Categories		10, 15		
Environmental Release Ca		2, 4		
Specific Environmental R		Not Applicable		
Processes, tasks, activition				
Use of the substance with	in laboratory setti	ngs, including material	transfers and equipment	
cleaning				
Assessment Method				
See Section 3.				
Section 2 Operational co		k management measu	res	
Section 2.1 Control of w	orker exposure			
Product characteristics				
Physical form of	Liquid, vapour p	oressure 0.5 - 10kPa	at STP [OC4]	
product				
Concentration of	•	age substance in the	product up to 100%	
substance in product	`	differently) [G13]		
Amounts used	No Limit			
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]			
duration of use				
Other Operational	Assumes use a	t not > 20oC above a	mbient [G15]	
Conditions affecting				
worker exposure				
	Assumes a good basic standard of occupational hygiene has			
	been implemented [G1]			
Contributing Scenarios	Specific Risk M	anagement Measures a	and Operating Conditions	
	(only required co	ontrols to demonstrate s	safe use listed)	
Laboratory activities	No specific measures identified[EI18]			
[CS36] PROC15				
Cleaning [CS47]	No specific mea	No specific measures identified[EI18]		
PROC10				
Section 2.2 Control of e	nvironmental ex	posure		
Product characteristics				
Substance is complex UV	CB [PrC3]. Prede	ominantly hydrophobic	[PrC4a].	
Amounts used				
Fraction of EU tonnage used in region 0.1			0.1	
Regional use tonnage (tonnes/year) 0.6				
Fraction of Regional tonnage used locally 1				
Annual site tonnage (tonnes/year) 0.6			0.6	
Ametar site tormage (tormes year)				



	1
Maximum daily site tonnage (kg/day)	30
Frequency and duration of use	
Continuous release [FD2].	
Emission days (days/year)	20
Environmental factors not influenced by risk management	
Local freshwater dilution factor	10
Local marine water dilution factor	100
Other given operational conditions affecting environmental ex	posure
Release fraction to air from process (initial release prior to RMM)	0.025
Release fraction to wastewater from process (initial release prior to	
RMM)	
Release fraction to soil from process (initial release prior to RMM)	0.0001
Technical conditions and measures at process level (source) to	
Common practices vary across sites thus conservative process release	
Technical onsite conditions and measures to reduce or limit dis	
and releases to soil	g,
Risk from environmental exposure is driven by Freshwater Sedime	ent [TCR1b].
No wastewater treatment required [TCR6].	[].
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to	0
provide the required removal efficiency ≥ (%)	
If discharging to domestic sewage treatment plant, provide the	0
required onsite wastewater removal efficiency of \geq (%)	Ŭ
Organisation measures to prevent/limit release from site	
organisation measures to prevent mine release from site	
Conditions and measures related to municipal sewage treatment	nt nlant
Conditions and measures related to municipal sewage treatmen	nt plant
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	50.2
Total efficiency of removal from wastewater after onsite and	96.2
offsite (domestic treatment plant) RMMs (%)	70.2
Maximum allowable site tonnage (M _{Safe}) based on release	1300
following total wastewater treatment removal (kg/d)	1300
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
Conditions and measures related to external treatment of wast	
External treatment and disposal of waste should comply with appli	<u> </u>
regulations. [ETW3]	cable local and/of hational
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with appl	
regulations. [ERW1]	icable local and/or national
Additional information on the basis for the allocation of the inde	ntified OCs and PMMs is
contained in PETRORISK file in IUCLID Section 13 – "Local Care	•
Section 3 Exposure Estimation	on woinsileel.
3.1. Health	
The FI F TOC TRA tool has been used to estimate workness over	ocures unless otherwise
The ELE TOC TRA tool has been used to estimate workplace expendicated [G21]	osures unless otherwise
The ELE TOC TRA tool has been used to estimate workplace experindicated. [G21]. 3.2. Environment	osures unless otherwise



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The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 27: Use in Laboratories – Professional

Section 1 Exposure Scen	ario Title		
Title			
Use in Laboratories – Prof	Tessional GES 1	7.2	
Use Descriptor			
Sector(s) of Use		22	
Process Categories		10, 15	
Environmental Release Ca	itegories	8a	
Specific Environmental R	elease Category	ESVOC 8.17.v1	
Processes, tasks, activitie	s covered		
Use of the substance within	n laboratory setti	ngs, including material transfers and equipment	
cleaning	-		
Assessment Method			
See Section 3.			
Section 2 Operational co	onditions and ris	k management measures	
Section 2.1 Control of w	orker exposure		
Product characteristics			
Physical form of	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]		
product			
Concentration of	Covers percentage substance in the product up to 100%		
substance in product	(unless stated differently) [G13]		
Amounts used	No Limit		
Frequency and	Covers daily exposures up to 8 hours (unless stated) [G2]		
duration of use			
Other Operational	Assumes use at not > 20oC above ambient [G15]		
Conditions affecting			
worker exposure			



	Assumes a good basic standard of obeen implemented [G1]	occupational hygiene has
Contributing Scenarios	, , ,	
Laboratory activities [CS36] PROC15	No specific measures identified[EI18]	
Cleaning [CS47] PROC10	No specific measures identified[EI18]
Section 2.2 Control of e	nvironmental exposure	
Product characteristics	•	
Substance is complex UV	CB [PrC3]. Predominantly hydrophobic	[PrC4a].
Amounts used	, , , , , , , , , , , , , , , , , , ,	
Fraction of EU tonnage u	sed in region	0.1
Regional use tonnage (tor	nnes/year)	0.8
Fraction of Regional tonn	age used locally	0.0005
Annual site tonnage (tonn	nes/year)	0.0004
Maximum daily site tonna		0.0011
Frequency and duration	of use	
Continuous release [FD2]		
Emission days (days/year		365
	not influenced by risk management	
Local freshwater dilution		10
Local marine water diluti		100
Other given operational	conditions affecting environmental exp	posure
	m process (initial release prior to RMM)	
Release fraction to wastewater from process (initial release prior to 0.5 RMM)		
	om process (initial release prior to RMM)	
	d measures at process level (source) to	
	cross sites thus conservative process relea	
Technical onsite conditions and releases to soil	ons and measures to reduce or limit dis	scharges, air emissions
Risk from environmental	exposure is driven by Freshwater [TCR1]	a].
No wastewater treatment	•	0
•	ride a typical removal efficiency of (%) prior to receiving water discharge) to	0
provide the required remo		O
		0
If discharging to domestic sewage treatment plant, provide the		O
required onsite wastewater removal efficiency of ≥ (%) Organisation massures to prevent/limit release from site		
Organisation measures to prevent/limit release from site		
Conditions and measures related to municipal sewage treatment plant		
Estimated substance remosewage treatment (%)	oval from wastewater via domestic	96.2
	al from wastewater after onsite and nt plant) RMMs (%)	96.2
12 (22 22 22 22 22 22 22 22 22 22 22 22 2	1 // " \. \. \. \.	



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Maximum allowable site tonnage (M _{Safe}) based on release	13
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000

Conditions and measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/of national regulations. [ETW3]

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]

Additional information on the basis for the allocation of the indentified OCs and RMMs is contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22].

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37]

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].

Scenario 28: Rubber Production and Processing – Industrial

Section 1 Exposure Scenario Title		
Title		
Rubber Production and Processing – Industrial GES 19.1		
Use Descriptor		
Sector(s) of Use	3, 10, 11	
Process Categories	1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 13, 14, 15, 21	
Environmental Release Categories	1, 4, 6d	
Specific Environmental Release Category	ESVOC 4.19.v1	
Processes, tasks, activities covered		
Manufacture of tyres and general rubber articles, including processing of raw (uncured)		



Irubber handling and mixi	ng of rubber additives, calendaring, vulcanising, cooling and		
	finishing as well as maintenance		
Assessment Method			
See Section 3.			
Section 2 Operational co	onditions and risk management measures		
Section 2.1 Control of w	orker exposure		
Product characteristics			
Physical form of product	Liquid, vapour pressure 0.5 - 10kPa at STP [OC4]		
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently) [G13]		
Amounts used	No Limit		
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]		
Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient [G15]		
·	Assumes a good basic standard of occupational hygiene has been implemented [G1]		
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions		
	(only required controls to demonstrate safe use listed)		
Material transfers [CS3](closed systems) [CS107] PROC1	No specific measures identified[EI18]		
Material transfers [CS3](closed systems) [CS107] PROC2	No specific measures identified[EI18]		
Material transfers [CS3] PROC8b	No specific measures identified[EI18]		
Bulk weighing [CS91] PROC1	No specific measures identified[EI18]		
Bulk weighing [CS91] PROC2	No specific measures identified[EI18]		
Small scale weighing [CS90] PROC9	No specific measures identified[EI18]		
Additive premixing [CS92] PROC3	No specific measures identified[EI18]		
Additive premixing [CS92] PROC4	No specific measures identified[EI18]		
Additive premixing [CS92] PROC5	No specific measures identified[EI18]		
Material transfers [CS3] PROC8b	No specific measures identified[EI18]		
Material transfers [CS3] PROC9	No specific measures identified[EI18]		
Calendering (including Banburys) [CS64]Operation is	No specific measures identified[EI18]		



Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a]. Strona 101 z 107		
Product characteristics		
Section 2.2 Control of environmental exposure		
[CS67] PROC2		
Material storage	No specific measures identified[EI18]	
[CS67] PROC1		
Material storage	No specific measures identified[EI18]	
PROC8a		
maintenance [CS5]		
Equipment	No specific measures identified[EI18]	
Laboratory activities [CS36] PROC15	No specific measures identified[El18]	
[CS102] PROC21	No apositio magauros identifical[E149]	
Finishing operations	No specific measures identified[EI18]	
[ĆS113] PROC13		
by dipping and pouring	,	
Production of articles	No specific measures identified[EI18]	
PROC6		
temperature) [OC7]		
temperature (> then 20°C above ambient		
carried out at elevated		
[CS71]Operation is		
Cooling cured articles	No specific measures identified[El18]	
PROC6		
]Manual [CS34]		
temperature) [OC7		
20°C above ambient		
temperature (> then		
carried out at elevated		
[CS70]Operation is		
Vulcanisation	No specific measures identified[EI18]	
PROC6		
temperature) [OC7]		
20°C above ambient		
temperature (> then		
carried out at elevated		
[CS70]Operation is	The specific measures identified[E110]	
Vulcanisation	No specific measures identified[EI18]	
Tyre build up [CS112] PROC7	No specific measures identified[El18]	
	No enecific measures identified[EI18]	
rubber blanks [CS73] PROC14		
Pressing uncured	No specific measures identified[EI18]	
PROC6	No apositio magauros identifical[E140]	
temperature) [OC7]		
20°C above ambient		
temperature (> then		
carried out at elevated		



Amounts used		
Fraction of EU tonnage used in region	0.1	
Regional use tonnage (tonnes/year)	5.0	
Fraction of Regional tonnage used locally	1	
Annual site tonnage (tonnes/year)	5.0	
Maximum daily site tonnage (kg/day)	250	
Frequency and duration of use		
Continuous release [FD2].		
Emission days (days/year)	20	
Environmental factors not influenced by risk management		
Local freshwater dilution factor	10	
Local marine water dilution factor	100	
Other given operational conditions affecting environmental exp		
<u>g</u> <u>g</u> <u>g</u>		
Release fraction to air from process (initial release prior to RMM)	0.01	
Release fraction to wastewater from process (initial release prior to		
RMM)	0.0000	
Release fraction to soil from process (initial release prior to RMM)	0.0001	
Technical conditions and measures at process level (source) to j		
Common practices vary across sites thus conservative process release		
Technical onsite conditions and measures to reduce or limit dis		
and releases to soil	enarges, arr enassions	
Risk from environmental exposure is driven by Freshwater Sedime	nt [TCR1b].	
Prevent discharge of undissolved substance to or recover from onsi		
No wastewater treatment required [TCR6].		
Treat air emission to provide a typical removal efficiency of (%)	0	
Treat onsite wastewater (prior to receiving water discharge) to	0	
provide the required removal efficiency ≥ (%)		
If discharging to domestic sewage treatment plant, provide the	0	
required onsite wastewater removal efficiency of \geq (%)		
Organisation measures to prevent/limit release from site		
Conditions and measures related to municipal sewage treatmen	nt plant	
The second secon	P	
Estimated substance removal from wastewater via domestic	96.2	
sewage treatment (%)		
Total efficiency of removal from wastewater after onsite and	96.2	
offsite (domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (M _{Safe}) based on release	850000	
following total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m ³ /d)	2000	
Conditions and measures related to external treatment of waste		
External treatment and disposal of waste should comply with applicable local and/of national		
regulations. [ETW3]		
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable local and/or national		
regulations. [ERW1]		
Additional information on the basis for the allocation of the inde	ntified OCs and RMMs is	
y y	V	



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contained in PETRORISK file in IUCLID Section 13 – "LocalCSR" worksheet.

Section 3 Exposure Estimation

3.1. Health

The ELE TOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21].

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].



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Scenario 29: Use in Polymer Processing – Industrial

Scenario 29: Use in Polymer Processing – Industrial		
Section 1 Exposure Scen	nario Title	
Title		
Use in Polymer Processin	<u>g – Industrial GI</u>	ES 21.1
Use Descriptor		
Sector(s) of Use		10
Process Categories		1, 2, 3, 4, 5, 6, 8a, 8b, 9, 13, 14, 21
Environmental Release C	ategories	4
Specific Environmental R		ESVOC 4.21a.v1
Processes, tasks, activitie	es covered	
		ng material transfers, additives handling (e.g.
pigments, stabilisers, fille	rs, plasticisers, etc	c.), moulding, curing and forming activities,
material re-works, storage	and associated m	naintenance
Assessment Method		
See Section 3.		
Section 2 Operational c	onditions and ris	k management measures
Section 2.1 Control of w	orker exposure	
Product characteristics		
Physical form of	Liquid, vapour p	oressure 0.5 - 10kPa at STP [OC4]
product		• •
Concentration of	Covers percent	age substance in the product up to 100%
substance in product		differently) [G13]
Amounts used	No Limit	
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated) [G2]	
Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient [G15]	
	Assumes a good basic standard of occupational hygiene has been implemented [G1]	
Contributing Scenarios		
	(only required co	ontrols to demonstrate safe use listed)
Bulk transfers [CS14](closed systems) [CS107] PROC1		asures identified[EI18]
Bulk transfers [CS14](closed systems) [CS107] PROC2	No specific mea	asures identified[EI18]
Bulk transfers [CS14] PROC8b	No specific mea	asures identified[EI18]
Bulk weighing [CS91] PROC1	No specific mea	asures identified[EI18]
Bulk weighing [CS91] PROC2	No specific mea	asures identified[EI18]
Small scale weighing	No specific mea	asures identified[EI18]



[CS90] PROC9			
Additive premixing	No specific measures identified[EI18]		
[CS92] PROC3	Tro specific medicales identifica[E116]		
Additive premixing	No specific measures identified[EI18]		
	No specific measures identified[E110]		
[CS92] PROC4	N		
Additive premixing	No specific measures identified[EI18]		
[CS92]Avoid carrying			
out operation for more			
than 4 hours [OC12]			
PROC5			
Bulk transfers [CS14]	No specific measures identified[EI18]		
PROC8b			
Bulk transfers [CS14]	No specific measures identified[EI18]		
PROC9			
Calendering (including	No specific measures identified[EI18]		
Banburys)	Tro opeome medeared identifica[E110]		
[CS64]Operation is			
carried out at elevated			
temperature (> then			
20°C above ambient			
temperature) [OC7]			
PROC6			
Production of articles	No specific measures identified[EI18]		
by dipping and pouring			
[CS113] PROC13			
Extrusion and	No specific measures identified[EI18]		
masterbatching [CS88]			
PROC14			
Injection moulding of	No specific measures identified[EI18]		
articles [CS89]	' '		
PROC14			
Finishing operations	No specific measures identified[EI18]		
[CS102] PROC21			
Equipment	No specific measures identified[EI18]		
maintenance [CS5]	To opcome medeates identificate froj		
PROC8a			
	No specific measures identified[E119]		
Material storage	No specific measures identified[EI18]		
[CS67] PROC1	No appoitio magazina identifical [F140]		
Material storage	No specific measures identified[EI18]		
[CS67] PROC2			
Section 2.2 Control of e	nvironmental exposure		
Product characteristics			
Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].			
Amounts used			
Fraction of EU tonnage used in region 0.1			
Regional use tonnage (ton			
Fraction of Regional tonn	<i>y</i> /		
,	Annual site tonnage (tonnes/year) 32		
I minam one cominge (com	55, 504,		



Maximum daily site tonnage (kg/day)	1600
Frequency and duration of use	
Continuous release [FD2].	
Emission days (days/year)	20
Environmental factors not influenced by risk management	
Local freshwater dilution factor	10
Local marine water dilution factor	100
Other given operational conditions affecting environmental ex	posure
Release fraction to air from process (initial release prior to RMM)	0.5
Release fraction to wastewater from process (initial release prior to	
RMM)	
Release fraction to soil from process (initial release prior to RMM	0.00001
Technical conditions and measures at process level (source) to	
Common practices vary across sites thus conservative process rele	•
Technical onsite conditions and measures to reduce or limit dis	
and releases to soil	
Prevent discharge of undissolved substance to or recover from ons	ite wastewater [TCR14].
Risk from environmental exposure is driven by Freshwater [TCR1	
No wastewater treatment required [TCR6].	-
Treat air emission to provide a typical removal efficiency of (%)	80
Treat onsite wastewater (prior to receiving water discharge) to	0
provide the required removal efficiency \geq (%)	
If discharging to domestic sewage treatment plant, provide the	0
required onsite wastewater removal efficiency of \geq (%)	
Organisation measures to prevent/limit release from site	-
· · · · · · · · · · · · · · · · · · ·	
Conditions and measures related to municipal sewage treatment	nt plant
The state of the s	P
Estimated substance removal from wastewater via domestic	96.2
sewage treatment (%)	
Total efficiency of removal from wastewater after onsite and	96.2
offsite (domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (M _{Safe}) based on release	24000000
following total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
Conditions and measures related to external treatment of wast	e for disposal
External treatment and disposal of waste should comply with appli	•
regulations. [ETW3]	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with appl	
regulations. [ERW1]	
Additional information on the basis for the allocation of the inde	entified OCs and RMMs is
contained in PETRORISK file in IUCLID Section 13 – "LocalCa	=
Section 3 Exposure Estimation	
3.1. Health	
The ELE TOC TRA tool has been used to estimate workplace expe	osures unless otherwise
indicated. [G21].	
L J	



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3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

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. [G22]. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. [G32]

Risk Management Measures are based on qualitative risk characterisation. [G37] Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23].

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 [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].