



Sicherheitsdatenblatt vom 23/9/2024, Version 17

ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

- 1.1. Produktidentifikator
Kennzeichnung der Mischung:
Handelsname: Glass Cleaner
Handelscode: 31006
- 1.2. Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird
Empfohlene Verwendung:
Reinigungsmittel/zur Reinigung
Nicht empfohlene Verwendungen:
Empfohlene Verwendungen strikt einhalten.
- 1.3. Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt
Lieferant:
Arexons S.p.A.
via Antica di Cassano, 23, 20063
Cernusco sul Naviglio (MI), Italy
Arexons S.p.A.
Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306
Sachkundigen Person verantwortlich vom Sicherheitsdatenblatt:
arexons@arexons.it
- 1.4. Notrufnummer
Arexons S.p.A.
Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306
Austrian emergency telephone number : Vergiftungsinformationszentrale (+43 1 406 43 43)
Giftnotruf Berlin: +49 30 30686700
Antigifcentrum Brussel: 80025500 (7 jours sur 7, 24 heures sur 24).

ABSCHNITT 2: Mögliche Gefahren

- 2.1. Einstufung des Stoffs oder Gemischs
Kriterien der EG Verordnung 1272/2008 (CLP):
Das Produkt wird gemäß CLP-Verordnung 1272/2008/EG nicht als gefährlich erachtet.
Für die menschlichen Gesundheit und die Umwelt gefährliche physisch-chemische Auswirkungen:
Keine weiteren Risiken
- 2.2. Kennzeichnungselemente
Das Produkt wird gemäß CLP-Verordnung 1272/2008/EG nicht als gefährlich erachtet.
Gefahrenpiktogramme:
Keine
Gefahrenhinweise:
Keine
Sicherheitshinweise:
Keine
Spezielle Vorschriften:
Keine
Besondere Regelungen gemäß Anhang XVII der REACH-Verordnung nachfolgenden Änderungen:
Keine

Verordnung (EG) Nr. 648/2004 (Detergenzien).
Das Produkt enthält ebenfalls: Duftstoffe

2.3. Sonstige Gefahren

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Keine PBT-, vPvB-Stoffe oder endokrine Disruptoren in Konzentrationen $\geq 0.1\%$:
Weitere Risiken:
Keine weiteren Risiken

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

3.1. Stoffe

N.A.

3.2. Gemische

Gefährliche Bestandteile gemäß der CLP-Verordnung und dazugehörige Einstufung:

Menge	Name	Identifikationsnummer	Klassifikation
$\geq 5\%$ - $< 7\%$	Ethanol	CAS: 64-17-5 EC: 200-578-6 REACH No.: 01-2119457610-43	⚠ 2.6/2 Flam. Liq. 2 H225 ⚠ 3.3/2 Eye Irrit. 2 H319 Spezifische Konzentrationsgrenzwerte: C $\geq 50\%$: Eye Irrit. 2 H319
$\geq 2\%$ - $< 3\%$	3-Butoxypropan-2-ol; Propylenglycolmonobutylether	Index- Nummer: 603-052-00-8 CAS: 5131-66-8 EC: 225-878-4 REACH No.: 01-2119475527-28	⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.3/2 Eye Irrit. 2 H319 Schätzung Akuter Toxizität: ATE - Oral 3300 mg/kg KG ATE - Haut 2000 mg/kg KG

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

4.1. Beschreibung der Erste-Hilfe-Maßnahmen

Nach Hautkontakt:

Mit reichlich Wasser und Seife abwaschen.

Nach Augenkontakt:

Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren.

Nach Verschlucken:

Auf keinen Fall Erbrechen herbeiführen. SOFORT ARZT ZUZIEHEN.

Nach Einatmen:

Den Verletzten ins Freie bringen, ihn ausruhen lassen und warm halten.

4.2. Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Keine

4.3. Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Behandlung:

Keine

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

5.1. Löschmittel

Geeignete Löschmittel:

Mit Kohlendioxid.

Mit Pulver.

Schaum

Wassernebel.

Löschmittel nicht empfohlen:

Keine direkten Wasserstrahlen benutzen

5.2. Besondere vom Stoff oder Gemisch ausgehende Gefahren

Die Explosions- bzw. Verbrennungsgase nicht einatmen.

Durch die Verbrennung entsteht ein dichter Rauch.



- 5.3. Hinweise für die Brandbekämpfung
Normale Brandbekämpfungskleidung, z. B. Pressluftatmer mit offenem Reislauf (EN 137), flammhemmender Anzug (EN469), flammhemmende Handschuhe (EN 659) und Stiefel für Feuerwehrleute (HO A29 oder A30).

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- 6.1. Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren
Die persönliche Schutzausrüstung tragen.
Die Personen an einen sicheren Ort bringen.
Die in Punkt 7 und 8 aufgeführten Schutzmaßnahmen beachten.
- 6.2. Umweltschutzmaßnahmen
Das Eindringen in den Boden/Unterboden verhindern. Das Abfließen in das Grundwasser oder in die Kanalisation verhindern.
Das kontaminierte Waschwasser auffangen und entsorgen.
Bei Austritt von Gas oder bei Eintritt in Wasserläufe, den Boden oder die Kanalisation die zuständigen Behörden informieren.
Geeignetes Material zum Auffangen: absorbierende oder organische Materialien, Sand
- 6.3. Methoden und Material für Rückhaltung und Reinigung
Reinigung:
Flammen und/oder Funken bei Leckagen und Abfallmaterial vermeiden. Nicht rauchen. Bei Verschütten größerer Mengen eindämmen, aufnehmen und für die Entsorgung in geeignete Behälter schaufeln. Bei kleineren Mengen mit saugfähigem Material eindämmen. Verschmutztes Material in geeignete Behälter geben. Entsorgung von verschmutztem Material in Übereinstimmung mit den örtlichen oder landesweiten Bestimmungen.
- 6.4. Verweis auf andere Abschnitte
Siehe auch die Abschnitte 8 und 13

ABSCHNITT 7: Handhabung und Lagerung

- 7.1. Schutzmaßnahmen zur sicheren Handhabung
Haut- und Augenkontakt sowie das Einatmen von Dämpfen vermeiden.
Für die empfohlenen Schutzausrüstungen wird auf Abschnitt 8 verwiesen.
- Während der Arbeit nicht essen oder trinken.
- 7.2. Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten
Nur im Originalbehälter aufbewahren.
Lebensmittel, Getränke und Tiernahrung fern halten.
Kein spezifischer.
Angaben zu den Lagerräumen:
Ausreichende Belüftung der Räume.
- 7.3. Spezifische Endanwendungen
Kein besonderer Verwendungszweck

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- 8.1. Zu überwachende Parameter
Ethanol - CAS: 64-17-5
ACGIH - STEL: 1000 ppm - Anmerkungen: A3 - URT irr
DNEL-Expositionsgrenzwerte
Ethanol - CAS: 64-17-5
Arbeitnehmer Gewerbe: 1900 mg/m³ - Exposition: Mensch - Inhalation - Häufigkeit:

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Kurzfristig (akut)

Arbeitnehmer Gewerbe: 950 mg/m³ - Exposition: Mensch - Inhalation - Häufigkeit:

Langfristig, systemische Auswirkungen

Arbeitnehmer Gewerbe: 343 mg/kg - Exposition: Mensch - dermal - Häufigkeit:

Langfristig, systemische Auswirkungen

3-Butoxypropan-2-ol; Propylenglycolmonobutylether - CAS: 5131-66-8

Arbeitnehmer Gewerbe: 44 mg/kg - Verbraucher: 16 mg/kg - Exposition: Mensch - dermal - Häufigkeit: Langfristig, systemische Auswirkungen

Arbeitnehmer Gewerbe: 270.5 mg/m³ - Verbraucher: 33.8 mg/m³ - Exposition: Mensch - Inhalation - Häufigkeit: Langfristig, systemische Auswirkungen

Verbraucher: 8.75 mg/kg - Exposition: Mensch - oral - Häufigkeit: Langfristig, systemische Auswirkungen

PNEC-Expositionsgrenzwerte

Ethanol - CAS: 64-17-5

Ziel: Süßwasser - Wert: 0.96 mg/l

Ziel: Meerwasser - Wert: 0.79 mg/l

Ziel: Flußsediment - Wert: 3.6 mg/kg

Ziel: Meerwasser-Sedimente - Wert: 2.9 mg/kg

Ziel: 09 - Wert: 580 mg/l

3-Butoxypropan-2-ol; Propylenglycolmonobutylether - CAS: 5131-66-8

Ziel: Süßwasser - Wert: 0.525 mg/l

Ziel: Meerwasser - Wert: 0.0525 mg/l

Ziel: 09 - Wert: 10 mg/l

Ziel: Flußsediment - Wert: 2.36 mg/kg

Ziel: Meerwasser-Sedimente - Wert: 0.236 mg/kg

8.2. Begrenzung und Überwachung der Exposition

Augenschutz:

Brille mit seitlichem Schutz

Entspricht EN 166

Hautschutz:

Schutzkleidung

Handschutz:

Handschuhe aus Nitril oder Viton.

Gemäß EN 374.

Dicke: Manschette 0,10 mm; Handfläche 0,12 mm; Finger 0,145 mm

Atemschutz:

Bei normaler Verwendung nicht erforderlich.

Wärmerisiken:

Keine

Kontrollen der Umweltexposition:

Keine

Geeignete technische Massnahmen:

Keine

ABSCHNITT 9: Physikalische und chemische Eigenschaften

9.1. Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

Eigenschaft	Wert	Methode:	Anmerkungen
Aggregatzustand:	flüssig	--	--
Farbe:	grün	--	--
Geruch:	charakteristisch	--	--
Schmelzpunkt/ Gefrierpunkt:	N.A.	--	--

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Siedepunkt oder Siedebeginn und Siedebereich:	N.A.	--	--
Entzündbarkeit:	N.A.	--	--
Untere und obere Explosionsgrenze:	N.A.	--	--
Flammpunkt: Handbuch der Prüfungen und Kriterien, Teil III, Abschnitt 32, Kap. 32.5.2 XY GHS-Kappe. 2.6.2 Anmerkung 2	(46°C) Not flammable for ADR/CLP	IP 170	Mit Wasser mischbare Lösungen und ihr Wassergehalt beträgt = 90% Masse.
Selbstentzündungstemperatur:	N.A.	--	--
Zerfalltemperatur:	N.A.	--	--
pH:	10.7	ASTM D1287	--
Kinematische Viskosität:	N.A.	--	--
Wasserlöslichkeit:	N.A.	--	--
Löslichkeit in Öl:	N.A.	--	--
Verteilungskoeffizient n-Oktanol/Wasser (log-Wert):	N.A.	--	--
Dampfdruck:	N.A.	--	--
Dichte und/oder relative Dichte:	0.989 g/cm3	09	--
Relative Dampfdichte:	N.A.	--	--
Partikeleigenschaften:			
Teilchengröße:	N.A.	--	--

9.2. Sonstige Angaben

Keine weiteren relevanten Informationen

ABSCHNITT 10: Stabilität und Reaktivität

10.1. Reaktivität

Stabil unter Normalbedingungen

10.2. Chemische Stabilität

Stabil bei normalen Raumtemperaturen, wenn wie empfohlen verwendet.

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10.3. Möglichkeit gefährlicher Reaktionen

Kann unter Einwirkung von Dithiokarbamaten, Mercaptanen und weiteren organischen Sulfiden, elementaren Metallen (Alkali- und Erdalkalimetallen), Pulverlegierungen, Dämpfen, starken Reduktionsmitteln entflammbare Gase bilden.

Kann unter Einwirkung von anorganischen Fluoriden, halogenierten organischen Stoffen, Sulfiden, Nitriden, Nitrilen, organischen Phosphaten, Phosphothioaten, Phosphodithioaten, starken Oxydationsmitteln giftige Gase bilden.

Kann sich unter Einwirkung von Dithiokarbamaten, elementaren Metallen (Alkali- und Erdalkalimetallen), Pulverlegierungen, Dämpfen, Platten oder Stangen), Nitriden entzünden.

10.4. Zu vermeidende Bedingungen

Übermäßige Hitze.

10.5. Unverträgliche Materialien

Keine spezifische.

10.6. Gefährliche Zersetzungsprodukte

Keine.

ABSCHNITT 11: Toxikologische Angaben

11.1. Angaben zu den Gefahrenklassen im Sinne der Verordnung (EG) Nr. 1272/2008

Toxikologische Informationen zum Produkt:

Glass Cleaner

a) akute Toxizität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

b) Ätz-/Reizwirkung auf die Haut

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

c) schwere Augenschädigung/-reizung

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

d) Sensibilisierung der Atemwege/Haut

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

e) Keimzell-Mutagenität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

f) Karzinogenität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

g) Reproduktionstoxizität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

h) spezifische Zielorgan-Toxizität bei einmaliger Exposition

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

i) spezifische Zielorgan-Toxizität bei wiederholter Exposition

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

j) Aspirationsgefahr

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Toxikologische Informationen zu den Hauptbestandteilen des Produkts:

Ethanol - CAS: 64-17-5

d) Sensibilisierung der Atemwege/Haut:

Test: Sensibilisierung der Haut - Weg: Haut Negativ

e) Keimzell-Mutagenität:

Test: Genotoxizität - Spezies: vitro Negativ

f) Karzinogenität:



- Test: Karzinogenität - Spezies: mam Positiv
- g) Reproduktionstoxizität:
Test: NOAEL - Weg: Einatmen - Spezies: Ratte = 1600 ppm
3-Butoxypropan-2-ol; Propylenglycolmonobutylether - CAS: 5131-66-8
- a) akute Toxizität
ATE - Oral 3300 mg/kg KG
ATE - Haut 2000 mg/kg KG
Test: LD50 - Weg: Oral - Spezies: Ratte 3300 mg/kg
Test: LD50 - Weg: Haut - Spezies: Ratte > 2000 mg/kg
- b) Ätz-/Reizwirkung auf die Haut:
Positiv
- c) schwere Augenschädigung/-reizung:
Positiv
- d) Sensibilisierung der Atemwege/Haut:
Negativ
- e) Keimzell-Mutagenität:
Negativ
- f) Karzinogenität:
Negativ
- g) Reproduktionstoxizität:
Negativ

- 11.2. Angaben über sonstige Gefahren
Endokrinschädliche Eigenschaften:
Keine endokrinen Disruptoren in Konzentrationen ≥ 0.1 %.

ABSCHNITT 12: Umweltbezogene Angaben

12.1. Toxizität

Im Einklang mit der GLP verwenden, nicht herumliegen lassen.
Ethanol - CAS: 64-17-5

- a) Akute aquatische Toxizität:
Endpunkt: LC50 - Spezies: Fische 14.2 GL - Dauer / h: 96
Endpunkt: LC50 - Spezies: Daphnia 29.6 GL - Dauer / h: 24
Endpunkt: EC50 - Spezies: Algen 19000 mg/l - Dauer / h: 96
Endpunkt: EC50 - Spezies: batteri 39.5 GL - Dauer / h: 4
- b) Chronische aquatische Toxizität:
Endpunkt: EC50 - Spezies: Fische 14536 mg/l - Dauer / h: 200
Endpunkt: LC50 - Spezies: Daphnia 9248 mg/l - Dauer / h: 48
3-Butoxypropan-2-ol; Propylenglycolmonobutylether - CAS: 5131-66-8

- a) Akute aquatische Toxizität:
Endpunkt: LC50 - Spezies: Fische > 560 mg/l - Dauer / h: 96
Endpunkt: EC50 - Spezies: Daphnia > 1000 mg/l - Dauer / h: 48
Endpunkt: EC50 - Spezies: Algen > 1000 mg/l - Dauer / h: 96
Endpunkt: EC50 - Spezies: fanghi > 1000 mg/l - Dauer / h: 3
- b) Chronische aquatische Toxizität:
Endpunkt: NOEC - Spezies: Algen 560 mg/l - Dauer / h: 96

12.2. Persistenz und Abbaubarkeit

Keine
3-Butoxypropan-2-ol; Propylenglycolmonobutylether - CAS: 5131-66-8
Biologische Abbaubarkeit: Schnell abbaubar - Test: BIOGDG12 - Dauer / h: 28gg - %: 90

12.3. Bioakkumulationspotenzial

3-Butoxypropan-2-ol; Propylenglycolmonobutylether - CAS: 5131-66-8
Bioakkumulation: Nicht bioakkumulierbar

12.4. Mobilität im Boden

N.A.

12.5. Ergebnisse der PBT- und vPvB-Beurteilung

vPvB-Stoffe: Keine - PBT-Stoffe: Keine

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- 12.6. Endokrinschädliche Eigenschaften
Keine endokrinen Disruptoren in Konzentrationen $\geq 0.1\%$.
- 12.7. Andere schädliche Wirkungen
Keine

ABSCHNITT 13: Hinweise zur Entsorgung

- 13.1. Verfahren der Abfallbehandlung
Nach Möglichkeit wiederverwerten. Entsprechend den geltenden örtlichen und nationalen Bestimmungen vorgehen.
- Zusatzinformationen zur Entsorgung:
- "Gemäß guter Arbeitspraxis verwenden und eine Verbreitung in der Umwelt vermeiden.
Das Produkt nicht in die Kanalisation, Rohrgräben oder Wasserläufe entladen. Die geltenden gesetzlichen Bestimmungen zum Schutz von Wasser und Boden vor Verschmutzung beachten (it. Gesetzesdekret Nr. 152 vom 3.4.2006).
Das gebrauchte Produkt und die Behälter durch Übergabe an autorisierte Unternehmen gemäß den Bestimmungen des it. Gesetzesdekrets Nr. 152/2006 entsorgen (Konsolidiertes Umweltgesetz, das das Ronchi-Dekret ersetzt) in seiner geänderten Fassung.
Das gebrauchte Produkt ist als Sonderabfall zu betrachten, der gemäß der Richtlinie 2008/98/EG über Abfälle und ähnliches einzustufen ist. Wenn möglich, wiederverwerten. An autorisierte Entsorgungseinrichtungen senden oder unter kontrollierten Bedingungen verbrennen (152/2006 Art. 184).
Gemäß den geltenden örtlichen und nationalen Bestimmungen verfahren.
Die kontaminierten Verpackungen müssen weitmöglichst entleert werden. Nach der Reinigung muss das Produkt bei einer zugelassenen Stelle recycelt oder eliminiert werden."

ABSCHNITT 14: Angaben zum Transport

- 14.1. UN-Nummer oder ID-Nummer
Kein Gefahrgut im Sinne der Transportvorschriften.
- 14.2. Ordnungsgemäße UN-Versandbezeichnung
N.A.
- 14.3. Transportgefahrenklassen
N.A.
- 14.4. Verpackungsgruppe
N.A.
- 14.5. Umweltgefahren
ADR-Umweltbelastung: Nein
IMDG-Marine pollutant: Nein
- 14.6. Besondere Vorsichtsmaßnahmen für den Verwender
N.A.
- 14.7. Massengutbeförderung auf dem Seeweg gemäß IMO-Instrumenten
N.A.

ABSCHNITT 15: Rechtsvorschriften

- 15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch
RL 98/24/EG (Schutz von Gesundheit und Sicherheit der Arbeitnehmer vor der Gefährdung durch chemische Arbeitsstoffe bei der Arbeit)
RL 2000/39/EG (Arbeitsplatz-Richtgrenzwerte)
Verordnung (EG) Nr. 1907/2006 (REACH)
Verordnung (EG) Nr. 1272/2008 (CLP)

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Verordnung (EG) Nr. 790/2009 (1. ATP CLP) und (EU) Nr. 758/2013

Verordnung (EU) Nr. 2020/878

Verordnung (EU) Nr. 286/2011 (2. ATP CLP)

Verordnung (EU) Nr. 618/2012 (3. ATP CLP)

Verordnung (EU) Nr. 487/2013 (4. ATP CLP)

Verordnung (EU) Nr. 944/2013 (5. ATP CLP)

Verordnung (EU) Nr. 605/2014 (6. ATP CLP)

Verordnung (EU) Nr. 2015/1221 (7. ATP CLP)

Verordnung (EU) Nr. 2016/918 (8. ATP CLP)

Verordnung (EU) Nr. 2016/1179 (9. ATP CLP)

Verordnung (EU) Nr. 2017/776 (10. ATP CLP)

Verordnung (EU) Nr. 2018/669 (11. ATP CLP)

Verordnung (EU) Nr. 2018/1480 (13. ATP CLP)

Verordnung (EU) Nr. 2019/521 (12. ATP CLP)

Verordnung (EU) Nr. 2020/217 (14. ATP CLP)

Verordnung (EU) Nr. 2020/1182 (15. ATP CLP)

Verordnung (EU) Nr. 2021/643 (16. ATP CLP)

Verordnung (EU) Nr. 2021/849 (17. ATP CLP)

Verordnung (EU) Nr. 2022/692 (18. ATP CLP)

Beschränkungen zum Produkt oder zu den Inhaltsstoffen gemäß Anhang XVII der Verordnung (EG) 1907/2006 (REACH) und nachfolgenden Änderungen:

Beschränkungen zum Produkt:

Keine Beschränkung.

Beschränkungen zu den Inhaltsstoffen gemäß:

Beschränkung 30

Beschränkung 40

Beschränkung 75

Flüchtige Organische Verbindung - FOV = 7.65 %

Flüchtige Organische Verbindung - FOV = 76.46 g/Kg

Flüchtige Organische Verbindung - FOV = 75.62 g/l

Wo möglich auf die folgenden Normen Bezug nehmen:

Richtlinie EU 2012/18 (Seveso III)

Verordnung (EG) Nr. 648/2004 (Detergenzien).

RL 2004/42/EG (FOV Richtlinie)

Anordnungen zu der Richtlinie EU 2012/18 (Seveso III):

Seveso III Kategorie gemäß dem Anhang 1, Teil 1

Das Produkt gehört zur Kategorie: P5c

15.2. Stoffsicherheitsbeurteilung

Keine Stoffsicherheitsbeurteilung wurde durchgeführt für das Gemisch
Stoffe, für die eine Stoffsicherheitsbeurteilung durchgeführt worden ist:

Ethanol

3-Butoxypropan-2-ol; Propylenglycolmonobutylether

ABSCHNITT 16: Sonstige Angaben

Text der verwendeten Sätze im Absatz 3:

H225 Flüssigkeit und Dampf leicht entzündbar.

H319 Verursacht schwere Augenreizung.

H315 Verursacht Hautreizungen.

Gefahrenklasse und Gefahrenkategorie	Code	Beschreibung
Flam. Liq. 2	2.6/2	Entzündbare Flüssigkeiten, Kategorie 2

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Skin Irrit. 2	3.2/2	Reizung der Haut, Kategorie 2
Eye Irrit. 2	3.3/2	Reizung der Augen, Kategorie 2

Modifikation der Paragraphen seit der letzten Revision:

ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens
ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen
ABSCHNITT 5: Maßnahmen zur Brandbekämpfung
ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung
ABSCHNITT 7: Handhabung und Lagerung
ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen
ABSCHNITT 9: Physikalische und chemische Eigenschaften
ABSCHNITT 10: Stabilität und Reaktivität
ABSCHNITT 11: Toxikologische Angaben
ABSCHNITT 12: Umweltbezogene Angaben
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ABSCHNITT 15: Rechtsvorschriften
ABSCHNITT 16: Sonstige Angaben

Diese Unterlagen wurden von einem Fachmann mit entsprechender Ausbildung abgefasst.

Hauptsächliche Literatur:

ECDIN - Daten- und Informationsnetz über umweltrelevante Chemikalien - Vereinigtes Forschungszentrum, Kommission der Europäischen Gemeinschaft
SAX's GEFÄHRLICHE EIGENSCHAFTEN VON INDUSTRIELLEN SUBSTANZEN - Achte Auflage - Van Nostrand Reinold

Die vorstehenden Angaben stützen sich auf den heutigen Stand unserer Kenntnisse. Sie gelten nur für das angegebene Produkt und stellen keine Zusicherung von Eigenschaften dar.

Es obliegt dem Anwender die Zuständigkeit und die Vollständigkeit dieser Angaben für seine spezifische Anwendung zu kontrollieren.

Dieses Datenblatt ersetzt alle früheren Ausgaben.

ADR: Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße
ATE: Schätzung Akuter Toxizität
ATEGemisch: Schätzwert der akuten Toxizität (Gemische)
CAS: Chemical Abstracts Service (Abteilung der American Chemical Society)
CLP: Einstufung, Verpackung und Kennzeichnung
DNEL: Abgeleitetes Null-Effekt-Niveau (DNEL)
EINECS: Europäisches Verzeichnis der auf dem Markt vorhandenen chemischen Stoffe
GefStoffVO: Gefahrstoffverordnung
GHS: Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien
IATA: Internationale Flug-Transport-Vereinigung (IATA)
IATA-DGR: Vorschriften über die Beförderung gefährlicher Güter der Internationalen Flug-Transport-Vereinigung (IATA)
ICAO: Internationale Zivilluftfahrtorganisation (ICAO)
ICAO-TI: Technische Anleitungen der Internationalen Zivilluftfahrtorganisation (ICAO)
IMDG: Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffsverkehr (IMDG-Code)
INCI: Internationale Nomenklatur für kosmetische Inhaltsstoffe (INCI)
KSt: Explosions-Koeffizient

Sicherheitsdatenblatt

Glass Cleaner



LC50:	Letale Konzentration für 50 Prozent der Testpopulation
LD50:	Letale Dosis für 50 Prozent der Testpopulation
NA:	Nicht anwendbar
PNEC:	Abgeschätzte Nicht-Effekt-Konzentration (PNEC-Wert)
RID:	Regelung zur internationalen Beförderung gefährlicher Güter im Schienenverkehr
STEL:	Grenzwert für Kurzzeiteexposition
STOT:	Zielorgan-Toxizität
TLV:	Arbeitsplatzgrenzwert
TWA:	Zeit gemittelte
WGK:	Wassergefährdungsklasse

Exposure Scenario, 23/07/2019

Substance identity	
Chemical name	Etanolo
CAS No.	64-17-5
EINECS No.	200-578-6

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1. ES 1 Consumer use; Anti-freeze and de-icing products (PC4)	
1.1 TITLE SECTION	
Exposure Scenario name	Car care and maintenance products - De-icing and anti-icing applications
Date - Version	22/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Anti-freeze and de-icing products (PC4)
Environment Contributing Scenario	
CS1 Covered by	ERC8d
Consumer Contributing Scenario	
CS2 Car Care - De-icing and anti-icing applications	PC4 - PC4_1
CS3 Car Care - De-icing and anti-icing applications	PC4 - PC4_2
CS4 Car Care - De-icing and anti-icing applications	PC4 - PC4_3
1.2 Conditions of use affecting exposure	
1.2. CS1: Environment Contributing Scenario: Covered by (ERC8d)	
Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8d)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 5726 Pa	
<i>Conditions and measures related to treatment of waste (including article waste)</i>	
Waste treatment No specific measures identified.	
<i>Other conditions affecting environmental exposure</i>	
Local marine water dilution factor: 100 Local freshwater dilution factor: 10	
1.2. CS2: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)	
Product Categories	Anti-freeze and de-icing products (PC4)
Product (Sub-)Categories	Washing car window (PC4_1)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers percentage substance in the product up to 1 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 0.5 g	
Duration: Covers use up to 0.017 h/event	
Frequency:	

Covers use up to 1 uses per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in a one car garage (>34 m ³) under typical ventilation.	
Temperature: Covers use at ambient temperatures.	
1.2. CS3: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)	
Product Categories	Anti-freeze and de-icing products (PC4)
Product (Sub-)Categories	Pouring into radiator (PC4_2)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 10 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 2000 g	
Duration: Covers use up to 0.17 h/event	
Frequency: Covers use up to 1 uses per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in a one car garage (>34 m ³) under typical ventilation.	
Temperature: Covers use at ambient temperatures.	
Additional conditions human health Covers skin contact area up to 482 cm ²	
1.2. CS4: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)	
Product Categories	Anti-freeze and de-icing products (PC4)
Product (Sub-)Categories	Lock de-icer (PC4_3)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 50 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 4 g	
Duration: Covers use up to 0.25 h/event	
Frequency: Covers use up to 1 uses per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in a one car garage (>34 m ³) under typical ventilation.	
Temperature: Covers use at ambient temperatures.	
Additional conditions human health Covers skin contact area up to 214 cm ²	
1.3 Exposure estimation and reference to its source	
1.3. CS1: Environment Contributing Scenario: Covered by (ERC8d)	

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.00443 mg/L	N/A	0.00461
freshwater sediment	0.0172 mg/kg bw/day	N/A	0.00467
marine water	0.000508 mg/L	N/A	0.000643
marine sediment	0.00194 mg/kg bw/day	N/A	0.00064
soil	0.00123 mg/kg bw/day	N/A	0.00724

1.2. CS2: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.000102 mg/m ³	N/A	8.94E-07
inhalative, local, short-term	0.000102 mg/m ³	N/A	8.94E-07
dermal, systemic, long-term	0 mg/kg bw/day	N/A	N/A
combined routes, systemic, long-term	N/A	N/A	8.94E-07

1.2. CS3: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	1.84 mg/m ³	N/A	0.0161
inhalative, local, short-term	1.84 mg/m ³	N/A	0.0161
dermal, systemic, long-term	5.62 mg/kg bw/day	N/A	0.0272
combined routes, systemic, long-term	N/A	N/A	0.0434

1.2. CS4: Consumer Contributing Scenario: Car Care - De-icing and anti-icing applications (PC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.51 mg/m ³	N/A	0.00447
inhalative, local, short-term	0.51 mg/m ³	N/A	0.0447
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.0679
combined routes, systemic, long-term	N/A	N/A	0.0724

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

2. ES 2 Consumer use; Various products (PC39, PC28)

2.1 TITLE SECTION

Exposure Scenario name	Cosumer other uses
Date - Version	22/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Cosmetics, personal care products (PC39) - Perfumes, fragrances (PC28)

Environment Contributing Scenario

CS1 Covered by	ERC8a
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Consumer Contributing Scenario

CS2 Consumer	PC39 - PC28
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2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Covered by (ERC8a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

5726 Pa

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

No specific measures identified.

2.2. CS2: Consumer Contributing Scenario: Consumer (PC39, PC28)

Product Categories	Cosmetics, personal care products - Perfumes, fragrances (PC39, PC28)
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2.3 Exposure estimation and reference to its source

2.3. CS1: Environment Contributing Scenario: Covered by (ERC8a)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.00236 mg/L	N/A	0.00246
freshwater sediment	0.00904 mg/kg bw/day	N/A	0.00246
marine water	0.000301 mg/L	N/A	0.000381
marine sediment	0.00115 mg/kg bw/day	N/A	0.00038
soil	0.00115 mg/kg bw/day	N/A	0.00676

2.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

3. ES 3 Use at industrial site

3.1 TITLE SECTION

Exposure Scenario name	Solvent
Date - Version	22/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Covered by	ERC4
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Worker Contributing Scenario

CS2 Industrial	PROC1
CS3 Industrial	PROC2
CS4 Industrial	PROC3
CS5 Industrial	PROC4
CS6 Industrial	PROC5
CS7 Industrial	PROC7
CS8 Industrial	PROC8a
CS9 Industrial	PROC8b
CS10 Industrial	PROC10
CS11 Industrial	PROC13
CS12 Industrial	PROC15

3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Covered by (ERC4)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)
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Product (article) characteristics

Vapour pressure:
< 10 kPa

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 3000 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 124000 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Treat air emission to provide the required removal efficiency of (%):	Air - minimum efficiency of: 90 %
Prevent discharge of undissolved substance to or recover from onsite wastewater.	Water - minimum efficiency of: 87 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

STP effluent (m³/day): 2000

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Incineration, disposal or recycling at specific offsite provider Contain and dispose of waste according to local regulations.	Waste - minimum efficiency of: 99.98 %
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Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/h

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.

Additional Good Practice Advice:

Contain leaks or spills within cabinets with removable trays.

3.2. CS2: Worker Contributing Scenario: Industrial (PROC1)

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

< 10 kPa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

Store substance within a closed system.

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

Personal protection

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.2. CS3: Worker Contributing Scenario: Industrial (PROC2)

Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
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<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS4: Worker Contributing Scenario: Industrial (PROC3)	
Process Categories	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS5: Worker Contributing Scenario: Industrial (PROC4)	
Process Categories	Chemical production where opportunity for exposure arises (PROC4)
<i>Product (article) characteristics</i>	

Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS6: Worker Contributing Scenario: Industrial (PROC5)	
Process Categories	Mixing or blending in batch processes (PROC5)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS7: Worker Contributing Scenario: Industrial (PROC7)	
Process Categories	Industrial spraying (PROC7)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	

Vapour pressure:

< 10 kPa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

*Amount used, frequency and duration of use/exposure***Duration:**

Covers daily exposures up to 8 hours

*Technical and organisational conditions and measures***Technical and organisational measures**

Use in contained systems

Store substance within a closed system.

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

*Conditions and measures related to personal protection, hygiene and health evaluation***Personal protection**

Use suitable eye protection.

*Other conditions affecting worker exposure***Temperature:** Covers use at ambient temperatures.**3.2. CS8: Worker Contributing Scenario: Industrial (PROC8a)****Process Categories**

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

*Product (article) characteristics***Physical form of product:**

Liquid

Vapour pressure:

< 10 kPa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

*Amount used, frequency and duration of use/exposure***Duration:**

Covers daily exposures up to 8 hours

*Technical and organisational conditions and measures***Technical and organisational measures**

Use in contained systems

Store substance within a closed system.

*Conditions and measures related to personal protection, hygiene and health evaluation***Personal protection**

Use suitable eye protection.

*Other conditions affecting worker exposure***Temperature:** Covers use at ambient temperatures.**3.2. CS9: Worker Contributing Scenario: Industrial (PROC8b)****Process Categories**

Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)

*Product (article) characteristics***Physical form of product:**

Liquid

Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS10: Worker Contributing Scenario: Industrial (PROC10)	
Process Categories	Roller application or brushing (PROC10)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in contained systems Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
3.2. CS11: Worker Contributing Scenario: Industrial (PROC13)	
Process Categories	Treatment of articles by dipping and pouring (PROC13)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

*Amount used, frequency and duration of use/exposure***Duration:**

Covers daily exposures up to 8 hours

*Technical and organisational conditions and measures***Technical and organisational measures**

Use in contained systems

Store substance within a closed system.

*Conditions and measures related to personal protection, hygiene and health evaluation***Personal protection**

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.2. CS12: Worker Contributing Scenario: Industrial (PROC15)**Process Categories**

Use as laboratory reagent (PROC15)

*Product (article) characteristics***Physical form of product:**

Liquid

Vapour pressure:

< 10 kPa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

*Amount used, frequency and duration of use/exposure***Duration:**

Covers daily exposures up to 8 hours

*Technical and organisational conditions and measures***Technical and organisational measures**

Use in contained systems

Store substance within a closed system.

*Conditions and measures related to personal protection, hygiene and health evaluation***Personal protection**

Use suitable eye protection.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

3.3 Exposure estimation and reference to its source**3.3. CS1: Environment Contributing Scenario: Covered by (ERC4)**

Release route	Release rate	Release estimation method
Air	0.98 %	N/A
Water	0.01 %	N/A
soil	0 %	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	6.32 mg/L	N/A	0.0109
freshwater	0.577 mg/L	N/A	0.601
freshwater sediment	2.21 mg/kg bw/day	N/A	0.601
marine water	0.0635 mg/L	N/A	0.0804
marine sediment	0.0635 mg/kg bw/day	N/A	0.0805
soil	0.0525 mg/kg bw/day	N/A	0.309

3.3. CS2: Worker Contributing Scenario: Industrial (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	< 0.01
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.01
combined routes, systemic, long-term	N/A	N/A	< 0.01

3.3. CS3: Worker Contributing Scenario: Industrial (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	0.01
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0141

3.3. CS4: Worker Contributing Scenario: Industrial (PROC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.0222

3.3. CS5: Worker Contributing Scenario: Industrial (PROC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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inhalative, systemic, long-term	38 mg/m ³	N/A	0.04
dermal, systemic, long-term	6.9 mg/kg bw/day	N/A	0.02
combined routes, systemic, long-term	N/A	N/A	0.0603

3.3. CS6: Worker Contributing Scenario: Industrial (PROC5)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

3.3. CS7: Worker Contributing Scenario: Industrial (PROC7)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	140 mg/m ³	N/A	0.151
dermal, systemic, long-term	43 mg/kg bw/day	N/A	0.125
combined routes, systemic, long-term	N/A	N/A	0.276

3.3. CS8: Worker Contributing Scenario: Industrial (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	96 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

3.3. CS9: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.0904

3.3. CS10: Worker Contributing Scenario: Industrial (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	27 mg/kg bw/day	N/A	0.08
combined routes, systemic, long-term	N/A	N/A	0.181

3.3. CS11: Worker Contributing Scenario: Industrial (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

3.3. CS12: Worker Contributing Scenario: Industrial (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.01
combined routes, systemic, long-term	N/A	N/A	0.0212

3.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

4. ES 4 Use at industrial site

4.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	22/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Covered by	ERC7
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Worker Contributing Scenario

CS2 Industrial	PROC1
CS3 Industrial	PROC2
CS4 Industrial	PROC3
CS5 Industrial	PROC8a
CS6 Industrial	PROC8b
CS7 Industrial	PROC15
CS8 Industrial	PROC16

4.2 Conditions of use affecting exposure

4.2. CS1: Environment Contributing Scenario: Covered by (ERC7)

Environmental release categories	Use of functional fluid at industrial site (ERC7)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

< 10 kPa

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 20000 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 14500000 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Provide onsite wastewater removal efficiency of ³ (%):

Water - minimum efficiency of: 87 %

Conditions and measures related to sewage treatment plant	
STP type: Municipal Sewage Treatment Plant Water - minimum efficiency of: = 87 % STP effluent (m³/day): 2000	
Conditions and measures related to treatment of waste (including article waste)	
Waste treatment Product residual disposal complies with applicable regulations.	
Other conditions affecting environmental exposure	
Local marine water dilution factor: 100 Local freshwater dilution factor: 10 Receiving surface water flow: 2000 m ³ /day	
Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.	
Additional Good Practice Advice: Adequate closed storage facilities (e.g., bulk storage tanks, intermediate bulk containers, drums) are required.	
4.2. CS2: Worker Contributing Scenario: Industrial (PROC1)	
Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
Product (article) characteristics	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
Amount used, frequency and duration of use/exposure	
Duration: Covers daily exposures up to 8 hours	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Use suitable eye protection.	
4.2. CS3: Worker Contributing Scenario: Industrial (PROC2)	
Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
Product (article) characteristics	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
Amount used, frequency and duration of use/exposure	

Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
4.2. CS4: Worker Contributing Scenario: Industrial (PROC3)	
Process Categories	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
4.2. CS5: Worker Contributing Scenario: Industrial (PROC8a)	
Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	

Personal protection Use suitable eye protection.	
4.2. CS6: Worker Contributing Scenario: Industrial (PROC8b)	
Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
4.2. CS7: Worker Contributing Scenario: Industrial (PROC15)	
Process Categories	Use as laboratory reagent (PROC15)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: < 10 kPa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
4.2. CS8: Worker Contributing Scenario: Industrial (PROC16)	
Process Categories	Use of fuels (PROC16)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	

Vapour pressure:

< 10 kPa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

*Amount used, frequency and duration of use/exposure***Duration:**

Covers daily exposures up to 8 hours

*Technical and organisational conditions and measures***Technical and organisational measures**

Handle substance within a closed system.

Store substance within a closed system.

*Conditions and measures related to personal protection, hygiene and health evaluation***Personal protection**

Use suitable eye protection.

4.3 Exposure estimation and reference to its source**4.3. CS1: Environment Contributing Scenario: Covered by (ERC7)**

Release route	Release rate	Release estimation method
Air	0.0025 %	N/A
Water	1E-05 %	N/A
soil	0 %	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	0.0421 mg/L	N/A	7.26E-05
freshwater	0.00657 mg/L	N/A	0.00684
freshwater sediment	0.00685 mg/kg bw/day	N/A	0.00685
marine water	0.00363 mg/L	N/A	0.00459
marine sediment	0.0139 mg/kg bw/day	N/A	0.00459
soil	0.00694 mg/kg bw/day	N/A	0.0408

4.3. CS2: Worker Contributing Scenario: Industrial (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.019 mg/m ³	N/A	< 0.001
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	< 0.001

4.3. CS3: Worker Contributing Scenario: Industrial (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	0.01
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0222

4.3. CS4: Worker Contributing Scenario: Industrial (PROC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.222

4.3. CS5: Worker Contributing Scenario: Industrial (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/m ³	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

4.3. CS6: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.0904

4.3. CS7: Worker Contributing Scenario: Industrial (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.001

combined routes, systemic, long-term	N/A	N/A	0.0112
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4.3. CS8: Worker Contributing Scenario: Industrial (PROC16)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	9.6 mg/m ³	N/A	0.01
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	0.0111

4.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

5. ES 5 Widespread use by professional workers

5.1 TITLE SECTION

Exposure Scenario name	Solvent
Date - Version	23/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Covered by	ERC8a - ERC8d
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Worker Contributing Scenario

CS2 General use from professional operators	PROC1
CS3 General use from professional operators	PROC2
CS4 General use from professional operators	PROC3
CS5 General use from professional operators	PROC4
CS6 General use from professional operators	PROC5 - PROC8a
CS7 General use from professional operators	PROC8b
CS8 General use from professional operators	PROC10
CS9 General use from professional operators	PROC11
CS10 General use from professional operators	PROC11
CS11 General use from professional operators	PROC13
CS12 General use from professional operators	PROC19

5.2 Conditions of use affecting exposure

5.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 0.1 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 715 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Treat air emission to provide the required removal efficiency of (%):	Air - minimum efficiency of: 90 %
Prevent discharge of undissolved substance to or recover from onsite wastewater.	

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Hazardous waste incineration	Waste - minimum efficiency of: 99.98 %
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5.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

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

Personal protection

Use suitable eye protection.

5.2. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)

Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

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

Personal protection

Use suitable eye protection.

5.2. CS4: Worker Contributing Scenario: General use from professional operators (PROC3)

Process Categories	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
5.2. CS5: Worker Contributing Scenario: General use from professional operators (PROC4)	
Process Categories	Chemical production where opportunity for exposure arises (PROC4)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
5.2. CS6: Worker Contributing Scenario: General use from professional operators (PROC5, PROC8a)	
Process Categories	Mixing or blending in batch processes - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC5, PROC8a)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
5.2. CS7: Worker Contributing Scenario: General use from professional operators (PROC8b)	
Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	

Personal protection Use suitable eye protection.	
5.2. CS8: Worker Contributing Scenario: General use from professional operators (PROC10)	
Process Categories	Roller application or brushing (PROC10)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection.	
5.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)	
Process Categories	Non industrial spraying (PROC11)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Provide a good standard of controlled ventilation (10 to 15 air changes per hour).	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Use suitable eye protection. Wear suitable gloves tested to EN374.	
<i>Other conditions affecting worker exposure</i>	
Indoor use	
5.2. CS10: Worker Contributing Scenario: General use from professional operators (PROC11)	
Process Categories	Non industrial spraying (PROC11)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	

Technical and organisational conditions and measures

Technical and organisational measures

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

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

Personal protection

Use suitable eye protection.

Wear suitable gloves tested to EN374.

Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

Outdoor use

5.2. CS11: Worker Contributing Scenario: General use from professional operators (PROC13)

Process Categories

Treatment of articles by dipping and pouring (PROC13)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

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

Personal protection

Use suitable eye protection.

Wear suitable gloves tested to EN374.

5.2. CS12: Worker Contributing Scenario: General use from professional operators (PROC19)

Process Categories

Manual activities involving hand contact (PROC19)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

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

Personal protection

Use suitable eye protection.

Wear suitable gloves tested to EN374.

5.3 Exposure estimation and reference to its source

5.3. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

Release route	Release rate	Release estimation method
Air	0.98 %	N/A
Water	0.01 %	N/A

soil	0.01 %	N/A
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protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	0.000173 mg/L	N/A	2.98E-07
freshwater	0.00238 mg/L	N/A	0.00248
freshwater sediment	0.00912 mg/kg bw/day	N/A	0.00248
marine sediment	0.000303 mg/L	N/A	0.000384
marine sediment	0.00116 mg/kg bw/day	N/A	0.000383
soil	0.00116 mg/kg bw/day	N/A	0.00682

5.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.019 mg/m ³	N/A	< 0.001
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	< 0.001

5.3. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	38 mg/m ³	N/A	0.04
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0443

5.3. CS4: Worker Contributing Scenario: General use from professional operators (PROC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.0524

5.3. CS5: Worker Contributing Scenario: General use from professional operators (PROC4)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	6.9 mg/kg bw/day	N/A	0.02
combined routes, systemic, long-term	N/A	N/A	0.121

5.3. CS6: Worker Contributing Scenario: General use from professional operators (PROC5, PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.242

5.3. CS7: Worker Contributing Scenario: General use from professional operators (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.202
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.141

5.3. CS8: Worker Contributing Scenario: General use from professional operators (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	27 mg/kg bw/day	N/A	0.08
combined routes, systemic, long-term	N/A	N/A	0.282

5.3. CS9: Worker Contributing Scenario: General use from professional operators (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	290 mg/m ³	N/A	0.303
dermal, systemic, long-term	21 mg/kg bw/day	N/A	0.062
combined routes, systemic, long-term	N/A	N/A	0.365

5.3. CS10: Worker Contributing Scenario: General use from professional operators (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	67 mg/m ³	N/A	0.071
dermal, systemic, long-term	21 mg/kg bw/day	N/A	0.062
combined routes, systemic, long-term	N/A	N/A	0.133

5.3. CS11: Worker Contributing Scenario: General use from professional operators (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	2.7 mg/kg bw/day	N/A	0.008
combined routes, systemic, long-term	N/A	N/A	0.21

5.3. CS12: Worker Contributing Scenario: General use from professional operators (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	28 mg/kg bw/day	N/A	0.082
combined routes, systemic, long-term	N/A	N/A	0.284

5.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

6. ES 6 Widespread use by professional workers

6.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	23/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Covered by	ERC9a - ERC9b
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Worker Contributing Scenario

CS2 General use from professional operators	PROC1
CS3 General use from professional operators	PROC2
CS4 General use from professional operators	PROC3
CS5 General use from professional operators	PROC8a
CS6 General use from professional operators	PROC8b
CS7 General use from professional operators	PROC16

6.2 Conditions of use affecting exposure

6.2. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)

Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure 0,5 - 10 kPa at STP

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 1 t(tonnes)/year

Maximum allowable site tonnage (MSafe): 7190 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Prevent discharge of undissolved substance to or recover from onsite wastewater.

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Product residual disposal complies with applicable regulations.

6.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
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Product (article) characteristics	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Use suitable eye protection.	
6.2. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)	
Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Use suitable eye protection.	
6.2. CS4: Worker Contributing Scenario: General use from professional operators (PROC3)	
Process Categories	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC3)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Store substance within a closed system.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Use suitable eye protection.	
6.2. CS5: Worker Contributing Scenario: General use from professional operators (PROC8a)	
Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure 0,5 - 10 kPa at STP	

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Technical and organisational conditions and measures**Technical and organisational measures**

Handle substance within a closed system.
Store substance within a closed system.

Conditions and measures related to personal protection, hygiene and health evaluation**Personal protection**

Use suitable eye protection.

6.2. CS6: Worker Contributing Scenario: General use from professional operators (PROC8b)**Process Categories**

Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)

Product (article) characteristics**Physical form of product:**

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Technical and organisational conditions and measures**Technical and organisational measures**

Handle substance within a closed system.
Store substance within a closed system.

Conditions and measures related to personal protection, hygiene and health evaluation**Personal protection**

Use suitable eye protection.

6.2. CS7: Worker Contributing Scenario: General use from professional operators (PROC16)**Process Categories**

Use of fuels (PROC16)

Product (article) characteristics**Physical form of product:**

Liquid, vapour pressure 0,5 - 10 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Technical and organisational conditions and measures**Technical and organisational measures**

Handle substance within a closed system.
Store substance within a closed system.

Conditions and measures related to personal protection, hygiene and health evaluation**Personal protection**

Use suitable eye protection.

6.3 Exposure estimation and reference to its source**6.3. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)**

Release route	Release rate	Release estimation method
Air	0.01 %	N/A
Water	1E-05 %	N/A

soil	0 %	N/A
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6.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.019 mg/m ³	N/A	< 0.001
dermal, systemic, long-term	0.03 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	< 0.001

6.3. CS3: Worker Contributing Scenario: General use from professional operators (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	38 mg/m ³	N/A	0.04
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.004
combined routes, systemic, long-term	N/A	N/A	0.0443

6.3. CS4: Worker Contributing Scenario: General use from professional operators (PROC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	48 mg/m ³	N/A	0.05
dermal, systemic, long-term	0.69 mg/kg bw/day	N/A	0.002
combined routes, systemic, long-term	N/A	N/A	0.0524

6.3. CS5: Worker Contributing Scenario: General use from professional operators (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	190 mg/m ³	N/A	0.202
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04
combined routes, systemic, long-term	N/A	N/A	0.242

6.3. CS6: Worker Contributing Scenario: General use from professional operators (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	96 mg/m ³	N/A	0.101
dermal, systemic, long-term	14 mg/kg bw/day	N/A	0.04

combined routes, systemic, long-term	N/A	N/A	0.141
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6.3. CS7: Worker Contributing Scenario: General use from professional operators (PROC16)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	19 mg/m ³	N/A	0.02
dermal, systemic, long-term	0.34 mg/kg bw/day	N/A	< 0.001
combined routes, systemic, long-term	N/A	N/A	0.0212

6.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

7. ES 7 Consumer use; Fuels (PC13)

7.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	23/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Fuels (PC13)

Environment Contributing Scenario

CS1 Covered by	ERC9b
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Consumer Contributing Scenario

CS2 Consumer	PC13 - PC13_1
CS3 Consumer	PC13 - PC13_2
CS4 Consumer	PC13 - PC13_3
CS5 Consumer	PC13 - PC13_4

7.2 Conditions of use affecting exposure

7.2. CS1: Environment Contributing Scenario: Covered by (ERC9b)

Environmental release categories	Widespread use of functional fluid (outdoor) (ERC9b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

5726 Pa

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Product residual disposal complies with applicable regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

7.2. CS2: Consumer Contributing Scenario: Consumer (PC13)

Product Categories	Fuels (PC13)
Product (Sub-)Categories	Liquid: Automotive Refuelling (PC13_1)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 85 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 37500 g

Duration: Exposure duration 0.05 h/event Frequency: Covers use up to 51 times per year	
<i>Other conditions affecting consumers exposure</i>	
Outdoor use	
Additional conditions human health Covers skin contact area up to 210 cm ²	
7.2. CS3: Consumer Contributing Scenario: Consumer (PC13)	
Product Categories	Fuels (PC13)
Product (Sub-)Categories	Liquid Scooter Refuelling (PC13_2)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 85 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 37500 g Duration: Exposure duration 0.033 h/event Frequency: Covers use up to 51 times per year	
<i>Other conditions affecting consumers exposure</i>	
Outdoor use	
Additional conditions human health Covers skin contact area up to 210 cm ²	
7.2. CS4: Consumer Contributing Scenario: Consumer (PC13)	
Product Categories	Fuels (PC13)
Product (Sub-)Categories	Liquid, Garden equipment - Use (PC13_3)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 15 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 750 g Duration: Exposure duration 2 h/event Frequency: Covers use up to 25 times per year	
<i>Other conditions affecting consumers exposure</i>	
Outdoor use	
Additional conditions human health Covers skin contact area up to 210 cm ²	
7.2. CS5: Consumer Contributing Scenario: Consumer (PC13)	
Product Categories	Fuels (PC13)

Product (Sub-)Categories	Liquid: Garden equipment - Refuelling (PC13_4)		
Product (article) characteristics			
Concentration of substance in product: Covers concentrations up to 85 %			
Amount used, frequency and duration of use/exposure			
Amounts used: Amount per use 750 g			
Duration: Exposure duration 0.05 h/event			
Frequency: Covers use up to 25 times per year			
Other conditions affecting consumers exposure			
Room size: Covers use in a one car garage (>34 m³) under typical ventilation.			
Temperature: Covers use at ambient temperatures.			
Additional conditions human health Covers skin contact area up to 210 cm²			

7.3 Exposure estimation and reference to its source

7.3. CS1: Environment Contributing Scenario: Covered by (ERC9b)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	0.0236 mg/L	N/A	0.00246
freshwater sediment	0.00905 mg/kg bw/day	N/A	0.00246
marine water	0.0003 mg/L	N/A	0.00038
marine sediment	0.0015 mg/kg bw/day	N/A	0.00038
marine sediment	0.0015 mg/kg bw/day	N/A	0.00676

7.2. CS2: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.187 mg/m³	N/A	0.00164
inhalative, local, short-term	1.3 mg/m³	N/A	0.0114
dermal, systemic, long-term	0.117 mg/kg bw/day	N/A	8.1E-05
combined routes, systemic, long-term	N/A	N/A	0.0114

7.2. CS3: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0612 mg/m³	N/A	0.000544

inhalative, local, short-term	0.434 mg/m ³	N/A	0.0038
dermal, systemic, long-term	0.117 mg/kg bw/day	N/A	8.1E-05
combined routes, systemic, long-term	N/A	N/A	0.00388

7.2. CS4: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0764 mg/m ³	N/A	0.00067
inhalative, local, short-term	1.09 mg/m ³	N/A	0.00956
dermal, systemic, long-term	4.13 mg/kg bw/day	N/A	0.0014
combined routes, systemic, long-term	N/A	N/A	0.0109

7.2. CS5: Consumer Contributing Scenario: Consumer (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.079 mg/m ³	N/A	0.000692
inhalative, local, short-term	1.12 mg/m ³	N/A	0.00982
dermal, systemic, long-term	0.117 mg/kg bw/day	N/A	3.98E-05
combined routes, systemic, long-term	N/A	N/A	0.00986

7.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

8. ES 8 Consumer use; Various products (PC1, PC3, PC8, PC18, PC23)

8.1 TITLE SECTION

Exposure Scenario name	Cosumer other uses
Date - Version	23/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adhesives, sealants (PC1) - Air care products (PC3) - Biocidal products (PC8) - Ink and toners (PC18) - Leather treatment products (PC23) - Lubricants, greases, release products (PC24) - Plant protection products (PC27) - Polishes and wax blends (PC31) - Textile dyes and impregnating products (PC34)

Environment Contributing Scenario

CS1 Covered by	ERC8a - ERC8d
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Consumer Contributing Scenario

CS2 Consumer	PC1 - PC1_1
CS3 Consumer	PC1 - PC1_3
CS4 Consumer	PC1 - PC1_4
CS5 Consumer	PC3 - PC3_1
CS6 Consumer	PC3 - PC3_2
CS7 Consumer	PC8 - PC35_1, PC8_1
CS8 Consumer	PC8 - PC8_2, PC35_2
CS9 Consumer	PC8 - PC8_3, PC35_3
CS10 Consumer	PC18
CS11 Consumer	PC23 - PC23_1, PC31_1
CS12 Consumer	PC23 - PC23_2, PC31_2
CS13 Consumer	PC24 - PC16_1, PC17_1, PC24_1, 36
CS14 Consumer	PC27
CS15 Consumer	PC31 - PC23_1, PC31_1
CS16 Consumer	PC31 - PC23_2, PC31_2

8.2 Conditions of use affecting exposure

8.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure > 10 kPa at STP

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Hazardous waste incineration	Waste - minimum efficiency of: 99.8 %
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Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/day

8.2. CS2: Consumer Contributing Scenario: Consumer (PC1)

Product Categories	Adhesives, sealants (PC1)
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Product (Sub-)Categories	Glues, hobby use (PC1_1)
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Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 70 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 4 h/event

Frequency:

Covers exposure up to 1 events per day

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Additional conditions human health

Covers skin contact area up to 35 cm²

8.2. CS3: Consumer Contributing Scenario: Consumer (PC1)

Product Categories	Adhesives, sealants (PC1)
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Product (Sub-)Categories	Glue from spray (PC1_3)
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Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 30 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 4 h/event

Frequency:

Covers exposure up to 6 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Additional conditions human health

Covers skin contact area up to 35 cm²

8.2. CS4: Consumer Contributing Scenario: Consumer (PC1)

Product Categories	Adhesives, sealants (PC1)
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Product (Sub-)Categories	Sealants (PC1_4)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 30 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 1 h/event	
Frequency: Covers exposure up to 1 events per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Additional conditions human health Covers skin contact area up to 35 cm ²	
8.2. CS5: Consumer Contributing Scenario: Consumer (PC3)	
Product Categories	Air care products (PC3)
Product (Sub-)Categories	Air care, instant action (aerosol sprays) (PC3_1)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 40 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 0.3 h/event	
Frequency: Covers exposure up to 4 events per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Additional conditions human health Covers skin contact area up to 35 cm ²	
8.2. CS6: Consumer Contributing Scenario: Consumer (PC3)	
Product Categories	Air care products (PC3)
Product (Sub-)Categories	Air care, continuous action (solid and liquid) (PC3_2)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 10 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 8 h/event	
Frequency:	

Covers exposure up to 1 events per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Additional conditions human health Covers skin contact area up to 35 cm ²	
8.2. CS7: Consumer Contributing Scenario: Consumer (PC8)	
Product Categories	Biocidal products (PC8)
Product (Sub-)Categories	Laundry and dish washing products (PC35_1, PC8_1)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers percentage substance in the product up to 5 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 15 g	
Duration: Exposure duration 0.5 h/event	
Frequency: Covers exposure up to 1 events per day	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Additional conditions human health Covers skin contact area up to 857 cm ²	
8.2. CS8: Consumer Contributing Scenario: Consumer (PC8)	
Product Categories	Biocidal products (PC8)
Product (Sub-)Categories	Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC8_2, PC35_2)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers percentage substance in the product up to 5 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 0.3 h/event	
Frequency: Covers exposure up to 125 times per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Additional conditions human health Covers skin contact area up to 857 cm ²	
8.2. CS9: Consumer Contributing Scenario: Consumer (PC8)	
Product Categories	Biocidal products (PC8)
Product (Sub-)Categories	Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC8_3, PC35_3)

Product (article) characteristics	
Concentration of substance in product: Covers concentrations up to 15 %	
Amount used, frequency and duration of use/exposure	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 0.2 h/event	
Frequency: Covers exposure up to 125 times per year	
Other conditions affecting consumers exposure	
Room size: Covers use in room size of 20 m ³ Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 428 cm ²	
8.2. CS10: Consumer Contributing Scenario: Consumer (PC18)	
Product Categories	Ink and toners (PC18)
Product (article) characteristics	
Concentration of substance in product: Covers concentrations up to 50 %	
Amount used, frequency and duration of use/exposure	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 8 h/event	
Frequency: Covers exposure up to 1 uses per day	
Other conditions affecting consumers exposure	
Room size: Covers use in room size of 20 m ³ Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 71 cm ²	
8.2. CS11: Consumer Contributing Scenario: Consumer (PC23)	
Product Categories	Leather treatment products (PC23)
Product (Sub-)Categories	Polishes, wax/cream (floor, furniture, shoes) (PC23_1, PC31_1)
Product (article) characteristics	
Concentration of substance in product: Covers concentrations up to 50 %	
Amount used, frequency and duration of use/exposure	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 1.2 h/event	
Frequency: Covers exposure up to 29 times per year	

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 430 cm²

8.2. CS12: Consumer Contributing Scenario: Consumer (PC23)

Product Categories	Leather treatment products (PC23)
Product (Sub-)Categories	Polishes, spray (furniture, shoes) (PC23_2, PC31_2)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 20 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 0.3 h/event

Frequency:

Covers exposure up to 8 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 430 cm²

8.2. CS13: Consumer Contributing Scenario: Consumer (PC24)

Product Categories	Lubricants, greases, release products (PC24)
Product (Sub-)Categories	Liquids (PC16_1, PC17_1, PC24_1, 36)

Product (article) characteristics

Concentration of substance in product:

Covers concentrations up to 20 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 50 g

Duration:

Exposure duration 0.2 h/event

Frequency:

Covers exposure up to 4 times per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 468 cm²

8.2. CS14: Consumer Contributing Scenario: Consumer (PC27)

Product Categories	Plant protection products (PC27)
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Product (article) characteristics

Concentration of substance in product: Covers concentrations up to 50 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 0.3 h/event	
Frequency: Covers exposure up to 29 times per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 857 cm ²	
8.2. CS15: Consumer Contributing Scenario: Consumer (PC31)	
Product Categories	Polishes and wax blends (PC31)
Product (Sub-)Categories	Polishes, wax/cream (floor, furniture, shoes) (PC23_1, PC31_1)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 50 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 1.2 h/event	
Frequency: Covers exposure up to 29 times per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 430 cm ²	
8.2. CS16: Consumer Contributing Scenario: Consumer (PC31)	
Product Categories	Polishes and wax blends (PC31)
Product (Sub-)Categories	Polishes, spray (furniture, shoes) (PC23_2, PC31_2)
<i>Product (article) characteristics</i>	
Concentration of substance in product: Covers concentrations up to 10 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 50 g	
Duration: Exposure duration 0.3 h/event	
Frequency: Covers exposure up to 8 times per year	

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 430 cm²

8.3 Exposure estimation and reference to its source

8.3. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
wastewater treatment plant microbes	0.273 mg/L	N/A	0.000471
freshwater	0.0297 mg/L	N/A	0.0309
freshwater sediment	0.114 mg/kg bw/day	N/A	0.031
marine water	0.00304 mg/L	N/A	0.00385
marine sediment	0.0116 mg/kg bw/day	N/A	0.00383
soil	0.116 mg/kg bw/day	N/A	0.00676

8.2. CS2: Consumer Contributing Scenario: Consumer (PC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	111 mg/m ³	N/A	0.973
inhalative, local, short-term	111 mg/m ³	N/A	0.973
dermal, systemic, long-term	3.28 mg/kg bw/day	N/A	0.0159
combined routes, systemic, long-term	N/A	N/A	0.989

8.2. CS3: Consumer Contributing Scenario: Consumer (PC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.788 mg/m ³	N/A	0.00682
inhalative, local, short-term	47.3 mg/m ³	N/A	0.414
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.000112
combined routes, systemic, long-term	N/A	N/A	0.212

8.2. CS4: Consumer Contributing Scenario: Consumer (PC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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inhalative, systemic, long-term	23.5 mg/m ³	N/A	0.206
inhalative, local, short-term	23.5 mg/m ³	N/A	0.206
dermal, systemic, long-term	1.4 mg/kg bw/day	N/A	0.00679
combined routes, systemic, long-term	N/A	N/A	0.212

8.2. CS5: Consumer Contributing Scenario: Consumer (PC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	38.7 mg/m ³	N/A	0.339
inhalative, local, short-term	38.7 mg/m ³	N/A	0.339
dermal, systemic, long-term	7.51 mg/kg bw/day	N/A	0.0364
combined routes, systemic, long-term	N/A	N/A	0.375

8.2. CS6: Consumer Contributing Scenario: Consumer (PC3)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	17.1 mg/m ³	N/A	0.15
inhalative, local, short-term	17.1 mg/m ³	N/A	0.15
dermal, systemic, long-term	0.469 mg/kg bw/day	N/A	0.00227
combined routes, systemic, long-term	N/A	N/A	0.152

8.2. CS7: Consumer Contributing Scenario: Consumer (PC8)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.672 mg/m ³	N/A	0.00589
inhalative, local, short-term	0.672 mg/m ³	N/A	0.00589
dermal, systemic, long-term	5.63 mg/kg bw/day	N/A	0.000273
combined routes, systemic, long-term	N/A	N/A	0.00616

8.2. CS8: Consumer Contributing Scenario: Consumer (PC8)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.543 mg/m ³	N/A	0.00476
inhalative, local, short-term	1.55 mg/m ³	N/A	0.0135

dermal, systemic, long-term	5.63 mg/kg bw/day	N/A	0.00956
combined routes, systemic, long-term	N/A	N/A	0.0231

8.2. CS9: Consumer Contributing Scenario: Consumer (PC8)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.885 mg/m ³	N/A	0.00776
inhalative, local, short-term	2.52 mg/m ³	N/A	0.0221
dermal, systemic, long-term	8.43 mg/kg bw/day	N/A	0.0143
combined routes, systemic, long-term	N/A	N/A	0.0364

8.2. CS10: Consumer Contributing Scenario: Consumer (PC18)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	86 mg/m ³	N/A	0.754
inhalative, local, short-term	86 mg/m ³	N/A	0.754
dermal, systemic, long-term	4.69 mg/kg bw/day	N/A	0.0227
combined routes, systemic, long-term	N/A	N/A	0.777

8.2. CS11: Consumer Contributing Scenario: Consumer (PC23)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	3.62 mg/m ³	N/A	0.0317
inhalative, local, short-term	45.3 mg/m ³	N/A	0.397
dermal, systemic, long-term	28.2 mg/kg bw/day	N/A	0.0109
combined routes, systemic, long-term	N/A	N/A	0.408

8.2. CS12: Consumer Contributing Scenario: Consumer (PC23)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.136 mg/m ³	N/A	0.00119
inhalative, local, short-term	6.24 mg/m ³	N/A	0.0547
dermal, systemic, long-term	1.23 mg/kg bw/day	N/A	6.5E-05
combined routes, systemic, long-term	N/A	N/A	0.0295

8.2. CS13: Consumer Contributing Scenario: Consumer (PC24)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0368 mg/m ³	N/A	0.000322
inhalative, local, short-term	3.36 mg/m ³	N/A	0.0294
dermal, systemic, long-term	1.23 mg/kg bw/day	N/A	6.5E-05
combined routes, systemic, long-term	N/A	N/A	0.0295

8.2. CS14: Consumer Contributing Scenario: Consumer (PC27)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	15.7 mg/m ³	N/A	0.137
inhalative, local, short-term	15.7 mg/m ³	N/A	0.137
dermal, systemic, long-term	11.2 mg/kg bw/day	N/A	0.0543
combined routes, systemic, long-term	N/A	N/A	0.226
oral, systemic, long-term	131.2 mg/kg bw/day	N/A	0.0344

8.2. CS15: Consumer Contributing Scenario: Consumer (PC31)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	3.62 mg/m ³	N/A	0.0317
inhalative, local, short-term	45.3 mg/m ³	N/A	0.397
dermal, systemic, long-term	28.2 mg/kg bw/day	N/A	0.0109
combined routes, systemic, long-term	N/A	N/A	0.408

8.2. CS16: Consumer Contributing Scenario: Consumer (PC31)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.0684 mg/m ³	N/A	0.0006
inhalative, local, short-term	3.12 mg/m ³	N/A	0.0273
dermal, systemic, long-term	5.65 mg/kg bw/day	N/A	0.000597
combined routes, systemic, long-term	N/A	N/A	0.0279

8.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

Exposure Scenario, 01/06/2021

Substance identity	
Chemical name	3-butossi-2-propanolo
CAS No.	5131-66-8
EINECS No.	225-878-4

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1. **ES 1** Use at industrial site
2. **ES 2** Widespread use by professional workers
3. **ES 3** Consumer use; Washing and cleaning products (PC35)

1. ES 1 Use at industrial site	
1.1 TITLE SECTION	
Exposure Scenario name	Use in cleaning agents
Date - Version	01/06/2021 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)
Environment Contributing Scenario	
CS1 Covered by	ERC4
Worker Contributing Scenario	
CS2 Industrial	PROC1 - PROC2 - PROC3 - PROC4 - PROC7 - PROC8a - PROC8b - PROC10 - PROC13
1.2 Conditions of use affecting exposure	
1.2. CS1: Environment Contributing Scenario: Covered by (ERC4)	
Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use (or from service life)</i>	
Amounts used: Daily amount per site 3281 tonnes/day	
Release type: Continuous release	
Emission days: 20 days per year	
<i>Technical and organisational conditions and measures</i>	
Control measures to prevent releases	
Filtration	Water - minimum efficiency of: 87.4 %
<i>Conditions and measures related to sewage treatment plant</i>	
STP type: Municipal Sewage Treatment Plant	
STP effluent (m³/day): 2000	
<i>Conditions and measures related to treatment of waste (including article waste)</i>	
Waste treatment Dispose of waste product or used containers according to local regulations. Incineration, disposal or recycling at specific offsite provider	
<i>Other conditions affecting environmental exposure</i>	

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.

Additional Good Practice Advice:

Use in closed process Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

1.2. CS2: Worker Contributing Scenario: Industrial (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC10, PROC13)

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Industrial spraying - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Roller application or brushing - Treatment of articles by dipping and pouring (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC10, PROC13)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

No other specific measures identified.

Ensure operatives are trained to minimise exposures.

Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

Ensure control measures are regularly inspected and maintained.

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

Personal protection

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario: Covered by (ERC4)

Additional information on exposure estimation:

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

1.3. CS2: Worker Contributing Scenario: Industrial (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC10, PROC13)

Additional information on exposure estimation:

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

2. ES 2 Widespread use by professional workers

2.1 TITLE SECTION

Exposure Scenario name	Use in cleaning agents
Date - Version	01/06/2021 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Covered by	ERC8a - ERC8d
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Worker Contributing Scenario

CS2 General use from professional operators	PROC1 - PROC2 - PROC3 - PROC4 - PROC8a - PROC8b - PROC10 - PROC11 - PROC13
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2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 3821 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Filtration	Water - minimum efficiency of: 87.4 %
Wet scrubber for elimination of volatile components from waste gases	

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

STP effluent (m³/day): 2000

Conditions and measures related to treatment of waste (including article waste)

Waste treatment Incineration, disposal or recycling at specific offsite provider Dispose of waste product or used containers according to local regulations.	
<i>Other conditions affecting environmental exposure</i>	
Local marine water dilution factor: 100 Local freshwater dilution factor: 10	
<i>Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.</i>	
Additional Good Practice Advice: Use in closed process	
2.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13)	
Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Roller application or brushing - Non industrial spraying - Treatment of articles by dipping and pouring (PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Concentration of substance in product: Covers percentage substance in the product up to 25 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Ensure operatives are trained to minimise exposures. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374 and sleeves. For further specification, refer to section 8 of the SDS Wear suitable gloves tested to EN374. Wear a respirator conforming to EN140.	
<i>Other conditions affecting worker exposure</i>	
Temperature: Covers use at ambient temperatures.	
2.3 Exposure estimation and reference to its source	
2.3. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)	
Additional information on exposure estimation: ECETOC TRA reduction factor for local exhaust ventilation (LEV) has not been used for the calculation of dermal exposure estimates. Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented.	
2.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13)	
Additional information on exposure estimation: ECETOC TRA reduction factor for local exhaust ventilation (LEV) has not been used for the calculation of dermal exposure estimates.	

2.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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

3. ES 3 Consumer use; Washing and cleaning products (PC35)

3.1 TITLE SECTION

Exposure Scenario name	Use in cleaning agents
Date - Version	01/06/2021 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Washing and cleaning products (PC35)

Environment Contributing Scenario

CS1 Covered by	ERC8a - ERC8d
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Consumer Contributing Scenario

CS2 Detergent liquids	PC35
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3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 285 kg/day

Release type: Continuous release

Emission days: 365 days per year

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Dispose of waste product or used containers according to local regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 2000 m³/day

3.2. CS2: Consumer Contributing Scenario: Detergent liquids (PC35)

Product Categories	Washing and cleaning products (PC35)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure**Amounts used:**

Amount per use 16 g

Duration:

Covers exposure up to 1 h/day

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 15 m³

Ventilation rate: Covers use under typical household ventilation.

3.3 Exposure estimation and reference to its source

3.3. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8d)

Additional information on exposure estimation:

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

3.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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