

Sicherheitsdatenblatt

PULITORE SISTEMA DI ASPIRAZIONE - INTAKE SYSTEM CLEANER



Sicherheitsdatenblatt vom 21/10/2024, Version 8

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

1.1. Produktidentifikator

Kennzeichnung der Mischung:

Handelsname: PULITORE SISTEMA DI ASPIRAZIONE - INTAKE SYSTEM
CLEANER

Handelscode: 4137

1.2. Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird

Empfohlene Verwendung:

Reinigungsmittel für Vergase

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):

⚠ Gefahr, Aerosols 1, Extrem entzündbares Aerosol. Behälter steht unter Druck: Kann bei Erwärmung bersten.

⚠ Achtung, Acute Tox. 4, Gesundheitsschädlich bei Einatmen.

⚠ Achtung, Skin Irrit. 2, Verursacht Hautreizungen.

⚠ Achtung, Eye Irrit. 2, Verursacht schwere Augenreizung.

⚠ Achtung, STOT SE 3, Kann die Atemwege reizen.

⚠ Achtung, STOT SE 3, Kann Schläfrigkeit und Benommenheit verursachen.

⚠ Achtung, STOT RE 2, Kann die Organe schädigen bei längerer oder wiederholter Exposition.

Aquatic Chronic 3, Schädlich für Wasserorganismen, mit langfristiger Wirkung.

Für die menschlichen Gesundheit und die Umwelt gefährliche physisch-chemische Auswirkungen:

Keine weiteren Risiken

2.2. Kennzeichnungselemente

Gefahrenpiktogramme:



Gefahr

Gefahrenhinweise:

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H222, H229 Extrem entzündbares Aerosol. Behälter steht unter Druck: Kann bei Erwärmung bersten.

H332 Gesundheitsschädlich bei Einatmen.

H315 Verursacht Hautreizungen.

H319 Verursacht schwere Augenreizung.

H335 Kann die Atemwege reizen.

H336 Kann Schläfrigkeit und Benommenheit verursachen.

H373 Kann die Organe schädigen bei längerer oder wiederholter Exposition.

H412 Schädlich für Wasserorganismen, mit langfristiger Wirkung.

Sicherheitshinweise:

P101 Ist ärztlicher Rat erforderlich, Verpackung oder Kennzeichnungsetikett bereithalten.

P102 Darf nicht in die Hände von Kindern gelangen.

P103 Lesen Sie sämtliche Anweisungen aufmerksam und befolgen Sie diese.

P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen sowie anderen Zündquellenarten fernhalten. Nicht rauchen.

P211 Nicht gegen offene Flamme oder andere Zündquelle sprühen.

P251 Nicht durchstechen oder verbrennen, auch nicht nach Gebrauch.

P271 Nur im Freien oder in gut belüfteten Räumen verwenden.

P405 Unter Verschluss aufbewahren.

P410+P412 Vor Sonnenbestrahlung schützen und nicht Temperaturen über 50 °C/122 °F aussetzen.

P501 Inhalt/Behälter laut Verordnung der Entsorgung zuführen.

Spezielle Vorschriften:

PACK2 Die Verpackung muss eine Gefahrenanzeige in Blindenschrift aufweisen.

Enthält

Xylene (Benzene <0.01%)

Butanon; Ethylmethylketon

2-Propanol; Isopropylalkohol; Isopropanol

Aceton; Propan-2-on; Propanon

Besondere Regelungen gemäß Anhang XVII der REACH-Verordnung nachfolgenden Änderungen:

Keine

2.3. Sonstige Gefahren

Keine PBT-, vPvB-Stoffe oder endokrine Disruptoren in Konzentrationen ≥ 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
$\geq 40\%$ - < 50%	Xylene (Benzene <0.01%)	CAS: 1330-20-7 EC: 215-535-7 REACH No.: 01-2119488216-32	⚠ 2.6/3 Flam. Liq. 3 H226 ⚠ 4.1/C3 Aquatic Chronic 3 H412 ⚠ 3.1/4 Inhal Acute Tox. 4 H332 ⚠ 3.1/4 Dermal Acute Tox. 4 H312 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.8/3 STOT SE 3 H335 ⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.9/2 STOT RE 2 H373 (Einatmung) ⚠ 3.10/1 Asp. Tox. 1 H304

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>= 20% - < 25%	Kohlenwasserstoffe, C3-4; Gase aus der Erdölverarbeitung	Index- Nummer: CAS: EC: REACH No.:	649-199-00-1 68476-40-4 270-681-9 01- 2119486557 -22	⚠ 2.2/1A Flam. Gas 1A H220 ⚠ 2.5/L Press Gas (Liq.) H280 DECLK (CLP)*
>= 10% - < 12,5%	Butanon; Ethylmethyleketon	Index- Nummer: CAS: EC: REACH No.:	606-002-00-3 78-93-3 201-159-0 01- 2119457290 -43	⚠ 2.6/2 Flam. Liq. 2 H225 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.8/3 STOT SE 3 H336 EUH066
>= 10% - < 12,5%	2-Propanol; Isopropylalkohol; Isopropanol	Index- Nummer: CAS: EC: REACH No.:	603-117-00-0 67-63-0 200-661-7 01- 2119457558 -25	⚠ 2.6/2 Flam. Liq. 2 H225 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.8/3 STOT SE 3 H336
>= 7% - < 10%	Aceton; Propan-2-on; Propanon	Index- Nummer: CAS: EC: REACH No.:	606-001-00-8 67-64-1 200-662-2 01- 2119471330 -49	⚠ 2.6/2 Flam. Liq. 2 H225 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.8/3 STOT SE 3 H336 EUH066
>= 3% - < 5%	Ethylacetat; Essigsäureethylester	CAS: EC: REACH No.:	141-78-6 205-500-4 01- 2119475103 -46	⚠ 2.6/2 Flam. Liq. 2 H225 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.8/3 STOT SE 3 H336

*DECLK (CLP): Stoff eingestuft gemäß Anmerkung K im Anhang VI der Verordnung 1272/2008/EG. Die harmonisierte Einstufung als karzinogen oder keimzellmutagen wird vorgenommen, es sei denn, es kann nachgewiesen werden, dass der Stoff weniger als 0,1 Gewichtsprozent 1,3-Butadien (Einecs-Nr. 203-450-8) enthält; in diesem Fall ist auch für diese Gefahrenklassen eine Einstufung gemäß Titel II dieser Verordnung vorzunehmen. Wird der Stoff nicht als karzinogen oder keimzellmutagen eingestuft, so sind zumindest die Sicherheitshinweise (P102-)P210-P403 anzuwenden.

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

4.1. Beschreibung der Erste-Hilfe-Maßnahmen

Nach Hautkontakt:

Verunreinigte Kleidung sofort ausziehen.

Körperbereiche, die mit dem Produkt in Kontakt getreten sind, bzw. bei denen dieser Verdacht besteht, müssen sofort mit viel fließendem Wasser und möglichst mit Seife gewaschen werden. Den Körper vollständig waschen (Dusche oder Bad).

Die kontaminierten Kleidungsstücke sofort ablegen und sie auf sichere Weise entsorgen.

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Im Falle von Hautkontakt sofort mit reichlich Wasser und Seife waschen.

Nach Augenkontakt:

Im Falle von Augenkontakt die Augen über einen ausreichenden Zeitraum mit Wasser spülen und die Augenlider offen halten; sofort einen Augenarzt konsultieren.

Das unverletzte Auge schützen.

Nach Verschlucken:

Bei Verschlucken: Einen Arzt hinzuziehen.

Nach Einatmen:

Bei unregelmäßige oder ausbleibender Atmung künstliche Beatmung anwenden.

Im Falle von Einatmen unverzüglich einen Arzt konsultieren und ihm die Packung bzw. das Etikett zeigen.

4.2. Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Bei Kontakt der Augen: Mit reichlich laufendem Wasser waschen. Bei weiterem Andauern der Reizung einen Arzt hinzuziehen.

4.3. Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Im Falle eines Unfalls bzw. bei Unwohlsein sofort einen Arzt konsultieren (wenn möglich, die Bedienungsanleitung bzw. das Sicherheitsdatenblatt vorzeigen).

Behandlung:

Keine

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

5.1. Löschmittel

Geeignete Löschmittel:

Mit Kohlendioxid.

Schaum für Alkohole

Wasserdampf.

Mit Pulver.

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 Atemschlauch (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.

Alle Entzündungsquellen entfernen.

Bei Exposition gegenüber Dämpfen, Stäuben oder Aerosolen Atemgeräte tragen.

Für eine angemessene Belüftung sorgen.

Einen angemessenen Atemschutz verwenden.

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

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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.

Das Belüftungssystem vor Ort verwenden.

Keine leeren Behälter verwenden, bevor diese nicht gereinigt wurden.

Vor dem Umfüllen sicherstellen, dass sich in den Behältern keine Reste inkompatibler Stoffe befinden.

Für die empfohlenen Schutzausrüstungen wird auf Abschnitt 8 verwiesen.

Kontaminierte Kleidungsstücke müssen vor dem Eintritt in Speiseräume gewechselt werden.

Während der Arbeit nicht essen oder trinken.

7.2. Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten

In gut verschlossenen Behältern aufbewahren, möglichst in einem kühlen Raum, fern von Wärmequellen und direkter Sonneneinstrahlung.

Für eine geeignete Belüftung/ Absaugen der Luft im Arbeitsbereich sorgen.

Nur im Originalbehälter aufbewahren.

Unter 50 °C lagern. Vor offenen Flammen und Wärmequellen fern halten. Keiner direkten Sonneneinstrahlung aussetzen.

Vor offenen Flammen, Zündfunken und Wärmequellen fern halten. Keiner direkten Sonneneinstrahlung aussetzen.

Lebensmittel, Getränke und Tiernahrung fern halten.

Kein spezifischer.

Angaben zu den Lagerräumen:

Kühl und ausreichend belüftet.

7.3. Spezifische Endanwendungen

Kein besonderer Verwendungszweck

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

8.1. Zu überwachende Parameter

Xylene (Benzene <0.01%) - CAS: 1330-20-7

EU - TWA(8h): 221 mg/m³, 50 ppm - STEL: 442 mg/m³, 100 ppm - Anmerkungen: Skin

ACGIH - TWA(8h): 20 ppm - Anmerkungen: A4, BEI - URT and eye irr; hematologic eff;

CNS impair

Kohlenwasserstoffe, C3-4; Gase aus der Erdölverarbeitung - CAS: 68476-40-4

MAK - TWA: 2400 mg/m³, 1000 ppm

TLV TWA - 1900 mg/m³, 800 ppm

Butanon; Ethylmethylketon - CAS: 78-93-3

20101.13 - TWA(8h): 600 mg/m³, 200 ppm - STEL(): 900 mg/m³, 300 ppm

20101.06 - TWA(8h): 600 mg/m³, 200 ppm - STEL(): 900 mg/m³, 300 ppm

EU - TWA(8h): 600 mg/m³, 200 ppm - STEL: 900 mg/m³, 300 ppm

ACGIH - TWA(8h): 200 ppm - STEL: 300 ppm - Anmerkungen: BEI - URT irr, CNS and PNS impair

2-Propanol; Isopropylalkohol; Isopropanol - CAS: 67-63-0

20101.11 - TWA: 983 mg/m³, 400 ppm

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20101.12 - TWA: 492 mg/m³, 200 ppm
ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Anmerkungen: A4, BEI - Eye and URT
irr, CNS impair

Aceton; Propan-2-on; Propanon - CAS: 67-64-1
EU - TWA(8h): 1210 mg/m³, 500 ppm
ACGIH - TWA(8h): 250 ppm - STEL: 500 ppm - Anmerkungen: A4, BEI - URT and eye
irr, CNS impair

Ethylacetat; Essigsäureethylester - CAS: 141-78-6
EU - TWA(8h): 734 mg/m³, 200 ppm - STEL: 1468 mg/m³, 400 ppm
ACGIH - TWA(8h): 400 ppm - Anmerkungen: URT and eye irr

DNEL-Expositionsgrenzwerte

Xylene (Benzene <0.01%) - CAS: 1330-20-7
Arbeitnehmer Gewerbe: 212 mg/kg - Verbraucher: 125 mg/kg - Exposition: Mensch -
dermal - Häufigkeit: Langfristig (wiederholt)
Arbeitnehmer Gewerbe: 221 mg/m³ - Verbraucher: 65.3 mg/m³ - Exposition: Mensch -
Inhalation - Häufigkeit: Langfristig (wiederholt)
Verbraucher: 12.5 mg/kg - Exposition: Mensch - oral - Häufigkeit: Langfristig (wiederholt)
Arbeitnehmer Gewerbe: 442 mg/kg - Exposition: Mensch - dermal - Häufigkeit: Kurzfristig
(akut)

2-Propanol; Isopropylalkohol; Isopropanol - CAS: 67-63-0
Arbeitnehmer Gewerbe: 888 mg/kg - Verbraucher: 319 mg/kg - Exposition: Mensch -
dermal - Häufigkeit: Langfristig (wiederholt)
Arbeitnehmer Gewerbe: 500 mg/m³ - Verbraucher: 89 mg/m³ - Exposition: Mensch -
Inhalation - Häufigkeit: Langfristig (wiederholt)
Verbraucher: 26 mg/kg - Exposition: Mensch - oral - Häufigkeit: Langfristig (wiederholt)

Aceton; Propan-2-on; Propanon - CAS: 67-64-1
Arbeitnehmer Gewerbe: 186 mg/kg - Verbraucher: 62 mg/kg - Exposition: Mensch -
dermal - Häufigkeit: Langfristig, systemische Auswirkungen
Arbeitnehmer Gewerbe: 2420 mg/m³ - Verbraucher: 62 mg/m³ - Exposition: Mensch -
Inhalation - Häufigkeit: Langfristig, lokale Auswirkungen
Arbeitnehmer Gewerbe: 1210 mg/m³ - Verbraucher: 200 mg/m³ - Exposition: Mensch -
Inhalation - Häufigkeit: Langfristig, systemische Auswirkungen

Ethylacetat; Essigsäureethylester - CAS: 141-78-6
Arbeitnehmer Gewerbe: 367 mg/m³ - Verbraucher: 367 mg/m³ - Exposition: Mensch -
Inhalation - Häufigkeit: Langfristig (wiederholt)
Arbeitnehmer Gewerbe: 1468 mg/m³ - Verbraucher: 734 mg/m³ - Exposition: Mensch -
Inhalation - Häufigkeit: Kurzfristig (akut)
Verbraucher: 4.5 mg/kg - Exposition: Mensch - oral - Häufigkeit: Langfristig (wiederholt)
Arbeitnehmer Gewerbe: 63 mg/kg - Verbraucher: 37 mg/kg - Exposition: Mensch - dermal
- Häufigkeit: Langfristig (wiederholt)

PNEC-Expositionsgrenzwerte

Xylene (Benzene <0.01%) - CAS: 1330-20-7
Ziel: Süßwasser - Wert: 0.32 mg/l
Ziel: Meerwasser - Wert: 0.32 mg/l
Ziel: Flußsediment - Wert: 12.46 mg/kg
Ziel: Meerwasser-Sedimente - Wert: 12.46 mg/kg
Ziel: 09 - Wert: 6.58 mg/l

2-Propanol; Isopropylalkohol; Isopropanol - CAS: 67-63-0
Ziel: Süßwasser - Wert: 140.9 mg/l
Ziel: Süßwasser - Wert: 140.9 mg/l
Ziel: Flußsediment - Wert: 552 mg/l
Ziel: Boden (Landwirtschaft) - Wert: 28 mg/kg
Ziel: Mikroorganismen in Kläranlagen - Wert: 2251 mg/l

Aceton; Propan-2-on; Propanon - CAS: 67-64-1
Ziel: Süßwasser - Wert: 10.6 mg/l
Ziel: Meerwasser - Wert: 1.06 mg/l
Ziel: Flußsediment - Wert: 30.4 mg/kg

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Ziel: Boden (Landwirtschaft) - Wert: 29.5 mg/kg
Ziel: Meerwasser-Sedimente - Wert: 3.04 mg/kg
Ethylacetat, Essigsäureethylester - CAS: 141-78-6
Ziel: Süßwasser - Wert: 0.24 mg/l
Ziel: Meerwasser - Wert: 0.02 mg/l
Ziel: Flußsediment - Wert: 1.15 mg/kg
Ziel: Meerwasser-Sedimente - Wert: 0.115 mg/kg
Ziel: 09 - Wert: 650 mg/l

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:

Verwenden Sie ein geeignetes Atemschutzgerät.

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:	farblos	--	--
Geruch:	charakteristisch	--	--
Schmelzpunkt/ Gefrierpunkt:	N.A.	--	--
Siedepunkt oder Siedebeginn und Siedebereich:	55-143°C	ASTM D 1120	--
Entzündbarkeit:	N.A.	--	--
Untere und obere Explosionsgrenze:	N.A.	--	--
Flammpunkt:	-20°C	IP 170	--
Selbstentzündungstemperatur:	N.A.	--	--
Zerfalltemperatur:	N.A.	--	--
pH:	N.A.	--	--

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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:	0.837 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.

10.3. Möglichkeit gefährlicher Reaktionen

Keine

10.4. Zu vermeidende Bedingungen

Übermäßige Hitze.

10.5. Unverträgliche Materialien

Kontakt mit brandfördernden Materialien vermeiden. Das Produkt könnte in Brand geraten.

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:

PULITORE SISTEMA DI ASPIRAZIONE E CARBURATORE SPRAY ML 500

a) akute Toxizität

Das Produkt ist eingestuft: Acute Tox. 4 H332

b) Ätz-/Reizwirkung auf die Haut

Das Produkt ist eingestuft: Skin Irrit. 2 H315

c) schwere Augenschädigung/-reizung

Das Produkt ist eingestuft: Eye Irrit. 2 H319

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

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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

Das Produkt ist eingestuft: STOT SE 3 H335; STOT SE 3 H336

i) spezifische Zielorgan-Toxizität bei wiederholter Exposition

Das Produkt ist eingestuft: STOT RE 2 H373

j) Aspirationsgefahr

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Toxikologische Informationen zu den Hauptbestandteilen des Produkts:

Xylene (Benzene <0.01%) - CAS: 1330-20-7

a) akute Toxizität:

Test: LDLo - Weg: Oral - Spezies: Ratte 5627 mg/kg

Test: LD50 - Weg: Haut - Spezies: Kaninchen > 5000 mg/kg

Test: LC50 - Weg: Einatmen - Spezies: Ratte 6700 ppm - Laufzeit: 4h

Butanon; Ethylmethylketon - CAS: 78-93-3

a) akute Toxizität:

Test: Ätzend für die Atemwege - Weg: Oral - Spezies: Ratte 2737 mg/kg

Test: Ätzend für die Atemwege - Weg: Einatmen - Spezies: Ratte 23.5 mg/l - Laufzeit: 8h

b) Ätz-/Reizwirkung auf die Haut:

Test: Ätzend für die Augen - Weg: Haut - Spezies: Kaninchen 6840 mg/kg

2-Propanol; Isopropylalkohol; Isopropanol - CAS: 67-63-0

a) akute Toxizität:

Test: LD50 - Weg: Oral - Spezies: Ratte = 5840 mg/kg

Test: LD50 - Weg: Haut - Spezies: Kaninchen = 16.4 ml/kg

Test: LC50 - Weg: Einatmen - Spezies: Ratte > 10000 ppm - Laufzeit: 6h

g) Reproduktionstoxizität:

Test: NOAEL(C) - Weg: Oral - Spezies: Kaninchen 480 mg/kg

Aceton; Propan-2-on; Propanon - CAS: 67-64-1

a) akute Toxizität:

Test: LD50 - Weg: Oral - Spezies: Ratte 5800 mg/kg

Test: LD50 - Weg: Haut - Spezies: Kaninchen > 7426 mg/kg

Test: LC50 - Weg: Einatmen - Spezies: Ratte 76 mg/l - Laufzeit: 4h

Ethylacetat; Essigsäureethylester - CAS: 141-78-6

a) akute Toxizität:

Test: LD50 - Weg: Oral - Spezies: Ratte 4934 mg/kg

Test: LD50 - Weg: Haut - Spezies: Kaninchen > 20000 mg/kg

Test: LCLo - Weg: Einatmen - Spezies: Ratte > 6000 ppm - Laufzeit: 6h

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.

Xylene (Benzene <0.01%) - CAS: 1330-20-7

a) Akute aquatische Toxizität:

Endpunkt: LC50 - Spezies: Fische 2.6 mg/l - Dauer / h: 96

Endpunkt: CE4 - Spezies: Daphnia 1 mg/l - Dauer / h: 24

Endpunkt: CE6 - Spezies: Algen 4.36 mg/l - Dauer / h: 73

b) Chronische aquatische Toxizität:

Endpunkt: NOEC - Spezies: Fische > 1.3 mg/l - Dauer / h: 1344

Endpunkt: NOEC - Spezies: Daphnia 1.57 mg/l - Dauer / h: 504

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PULITORE SISTEMA DI ASPIRAZIONE - INTAKE SYSTEM CLEANER



Kohlenwasserstoffe, C3-4; Gase aus der Erdölverarbeitung - CAS: 68476-40-4

a) Akute aquatische Toxizität:

Endpunkt: LC50 - Spezies: Daphnia = 14.22 mg/l - Dauer / h: 48

2-Propanol; Isopropylalkohol; Isopropanol - CAS: 67-63-0

a) Akute aquatische Toxizität:

Endpunkt: LC50 - Spezies: Fische 9640 mg/l - Dauer / h: 96

Endpunkt: LC50 - Spezies: Fische > 100 mg/l - Dauer / h: 48

Endpunkt: EC50 - Spezies: Daphnia > 10000 mg/l - Dauer / h: 48

Endpunkt: EC50 - Spezies: Algen > 1800 mg/l - Dauer / h: 72

Aceton; Propan-2-on; Propanon - CAS: 67-64-1

a) Akute aquatische Toxizität:

Endpunkt: LC50 - Spezies: Fische = 8120 mg/l - Dauer / h: 96

Endpunkt: EC50 - Spezies: Daphnia 8800 mg/l - Dauer / h: 48

Spezies: fanghi 1000 mg/l

b) Chronische aquatische Toxizität:

Endpunkt: NOEC - Spezies: Algen 530 mg/l - Dauer / h: 192

Ethylacetat; Essigsäureethylester - CAS: 141-78-6

a) Akute aquatische Toxizität:

Endpunkt: LC50 - Spezies: Fische 230 mg/l - Dauer / h: 96

Endpunkt: EC50 - Spezies: Daphnia 165 mg/l - Dauer / h: 48

Endpunkt: NOEC - Spezies: Algen > 100 mg/l - Dauer / h: 72

b) Chronische aquatische Toxizität:

Endpunkt: NOEC - Spezies: Daphnia 2.4 mg/l - Dauer / h: 504

c) Bakterientoxizität:

Endpunkt: EC50 - Spezies: Algen 5870 mg/l - Dauer / h: 0.25

12.2. Persistenz und Abbaubarkeit

Keine

2-Propanol; Isopropylalkohol; Isopropanol - CAS: 67-63-0

Biologische Abbaubarkeit: Schnell abbaubar - Dauer / h: 10gg - %: 70

Aceton; Propan-2-on; Propanon - CAS: 67-64-1

Biologische Abbaubarkeit: Schnell abbaubar - Dauer / h: 28gg - %: 91 - Anmerkungen:

OECD 301 B

12.3. Bioakkumulationspotenzial

Aceton; Propan-2-on; Propanon - CAS: 67-64-1

Test: BCF - Biokonzentrationsfaktor 3

Ethylacetat; Essigsäureethylester - CAS: 141-78-6

Test: BCF - Biokonzentrationsfaktor 30

12.4. Mobilität im Boden

N.A.

12.5. Ergebnisse der PBT- und vPvB-Beurteilung

vPvB-Stoffe: Keine - PBT-Stoffe: Keine

12.6. Endokrinschädliche Eigenschaften

Keine endokrinen Disruptoren in Konzentrationen ≥ 0.1 %.

12.7. Andere schädliche Wirkungen

Keine

ABSCHNITT 13: Hinweise zur Entsorgung

13.1. Verfahren der Abfallbehandlung

Nach Möglichkeit wiederverwerten. Behördlich zugelassenen Deponien oder Verbrennungsanlagen zuführen. 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

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PULITORE SISTEMA DI ASPIRAZIONE - INTAKE SYSTEM CLEANER



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

ADR-UN Number: 1950

IATA-UN Number: 1950

IMDG-UN Number: 1950

14.2. Ordnungsgemäße UN-Versandbezeichnung

ADR-Shipping Name: DRUCKGASPACKUNGEN, entzündbar

IATA-Shipping Name: DRUCKGASPACKUNGEN, entzündbar

IMDG-Shipping Name: DRUCKGASPACKUNGEN, entzündbar

14.3. Transportgefahrenklassen

ADR-Class: 2

ADR - Gefahrnummer: -

IATA-Class: 2

IATA-Label: 2.1

IMDG-Class: 2

IMDG-Klasse: 2

14.4. Verpackungsgruppe

ADR-Packing Group: -

IATA-Packing group: -

IMDG-Packing group: -

14.5. Umweltgefahren

ADR-Umweltbelastung: Nein

IMDG-Marine pollutant: Nein

IMDG-EmS: F-D,
S-U

14.6. Besondere Vorsichtsmaßnahmen für den Verwender

ADR-Subsidiary hazards: See SP63

ADR-S.P.: 190 327 344 625

ADR-Beförderungskategorie (Tunnelbeschränkungscode):

2 (D)

IATA-Passenger Aircraft: 203

IATA-Subsidiary hazards: See SP63

IATA-Cargo Aircraft: 203

IATA-S.P.: A145 A167 A802

IATA-ERG: 10L

IMDG-Subsidiary hazards: See SP63

IMDG-Stowage and handling: SW1 SW22

IMDG-Segregation: SG69

14.7. Massengutbeförderung auf dem Seeweg gemäß IMO-Instrumenten

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PULITORE SISTEMA DI ASPIRAZIONE - INTAKE SYSTEM CLEANER



N.A.

Limited Quantity: 1 L

Exempted Quantity: E0

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)

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:

Beschränkung 3

Beschränkung 40

Beschränkungen zu den Inhaltsstoffen gemäß:

Beschränkung 75

Flüchtige Organische Verbindung - FOV = 100.00 %

Flüchtige Organische Verbindung - FOV = 1000.00 g/Kg

Flüchtige Organische Verbindung - FOV = 837.00 g/l

Wo möglich auf die folgenden Normen Bezug nehmen:

Regulated Product according to Regulation (EU) 1148/2019. All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.

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: P3a

15.2. Stoffsicherheitsbeurteilung

Keine Stoffsicherheitsbeurteilung wurde durchgeführt für das Gemisch

Stoffe, für die eine Stoffsicherheitsbeurteilung durchgeführt worden ist:

Xylene (Benzene <0.01%)

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PULITORE SISTEMA DI ASPIRAZIONE - INTAKE SYSTEM CLEANER



Kohlenwasserstoffe, C3-4; Gase aus der Erdölverarbeitung
2-Propanol; Isopropylalkohol; Isopropanol
Aceton; Propan-2-on; Propanon

ABSCHNITT 16: Sonstige Angaben

Text der verwendeten Sätze im Absatz 3:

H226 Flüssigkeit und Dampf entzündbar.
H412 Schädlich für Wasserorganismen, mit langfristiger Wirkung.
H332 Gesundheitsschädlich bei Einatmen.
H312 Gesundheitsschädlich bei Hautkontakt.
H319 Verursacht schwere Augenreizung.
H335 Kann die Atemwege reizen.
H315 Verursacht Hautreizungen.
H373 (Einatmung) Kann bei Einatmen die Organe schädigen bei längerer oder wiederholter Exposition.
H304 Kann bei Verschlucken und Eindringen in die Atemwege tödlich sein.
H220 Extrem entzündbares Gas.
H280 Enthält Gas unter Druck; kann bei Erwärmung explodieren.
H225 Flüssigkeit und Dampf leicht entzündbar.
H336 Kann Schläfrigkeit und Benommenheit verursachen.
EUH066 Wiederholter Kontakt kann zu spröder oder rissiger Haut führen.

Gefahrenklasse und Gefahrenkategorie	Code	Beschreibung
Flam. Gas 1A	2.2/1A	Entzündbare Gas, Kategorie 1A
Aerosols 1	2.3/1	Aerosole, Kategorie 1
Press Gas (Liq.)	2.5/L	Gase unter Druck (verflüssigtes Gas)
Flam. Liq. 2	2.6/2	Entzündbare Flüssigkeiten, Kategorie 2
Flam. Liq. 3	2.6/3	Entzündbare Flüssigkeiten, Kategorie 3
Acute Tox. 4	3.1/4/Dermal	Akute Toxizität (dermal), Kategorie 4
Acute Tox. 4	3.1/4/Inhal	Akute Toxizität (inhalativ), Kategorie 4
Asp. Tox. 1	3.10/1	Aspirationsgefahr, Kategorie 1
Skin Irrit. 2	3.2/2	Reizung der Haut, Kategorie 2
Eye Irrit. 2	3.3/2	Reizung der Augen, Kategorie 2
STOT SE 3	3.8/3	Spezifische Zielorgan-Toxizität (einmalige Exposition), Kategorie 3
STOT RE 2	3.9/2	Spezifische Zielorgan-Toxizität (wiederholte Exposition), Kategorie 2
Aquatic Chronic 3	4.1/C3	Chronisch (langfristig) gewässergefährdend, Kategorie 3

Modifikation der Paragraphen seit der letzten Revision:

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

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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 13: Hinweise zur Entsorgung

ABSCHNITT 15: Rechtsvorschriften

Einstufung und Verfahren, das zum Ableiten der Einstufung von Gemischen gemäß Verordnung (EG) 1272/2008 [CLP] verwendet wurde:

Einstufung gemäß Verordnung (EG) Nr. 1272/2008	Einstufungsverfahren
Aerosols 1, H222, H229	auf der Basis von Prüfdaten
Acute Tox. 4, H332	Berechnungsmethode
Skin Irrit. 2, H315	Berechnungsmethode
Eye Irrit. 2, H319	Berechnungsmethode
STOT SE 3, H335	Berechnungsmethode
STOT SE 3, H336	Berechnungsmethode
STOT RE 2, H373	Berechnungsmethode
Aquatic Chronic 3, H412	Berechnungsmethode

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)

Sicherheitsdatenblatt

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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
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 Kurzzeitexposition
STOT:	Zielorgan-Toxizität
TLV:	Arbeitsplatzgrenzwert
TWA:	Zeit gemittelte
WGK:	Wassergefährdungsklasse

Exposure Scenario, 17/07/2019

Substance identity	
Chemical name	IDROCARBURI C3-C4, Miscela (propano,butano,isobutano< 0,1% 1,3-Butadiene)
CAS No.	68476-40-4
EINECS No.	270-681-9

Table of contents

1. **ES 1** Use at industrial site

1. ES 1 Use at industrial site	
1.1 TITLE SECTION	
Exposure Scenario name	Use as a propellant
Date - Version	17/07/2019 - 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
Worker Contributing Scenario	
CS2 Propellant	PROC1 - PROC2 - PROC3 - PROC8b - PROC9 - PROC12
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)
1.2. CS2: Worker Contributing Scenario: Propellant (PROC1, PROC2, PROC3, PROC8b, PROC9, PROC12)	
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 - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Use of blowing agents in manufacture of foam (PROC1, PROC2, PROC3, PROC8b, PROC9, PROC12)
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 Keep drains in watertight containers while awaiting dismantling or subsequent recycling Use in contained systems Ensure operatives are trained to minimise exposures. Ensure that direct skin contact is avoided. Clear transfer lines prior to de-coupling. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Drain down and flush system prior to equipment break-in or maintenance.	
Conditions and measures related to personal protection, hygiene and health evaluation	

Personal protection

Wear suitable respiratory protection.

Other conditions affecting worker exposure

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

1.3 Exposure estimation and reference to its source

N/A

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.

Exposure Scenario, 28/08/2019

Substance identity	
Chemical name	2-PROPANONE
CAS No.	67-64-1
EINECS No.	200-662-2

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1. **ES 1** Use at industrial site
2. **ES 2** Widespread use by professional workers
3. **ES 3** Consumer use; Various products (PC9b, PC9a, PC1, PC4, PC15)
4. **ES 4** Use at industrial site
5. **ES 5** Widespread use by professional workers
6. **ES 6** Consumer use; Various products (PC9b, PC9a, PC3, PC4, PC24)

1. ES 1 Use at industrial site	
1.1 TITLE SECTION	
Exposure Scenario name	Professional application of coatings and inks
Date - Version	28/08/2019 - 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
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	PROC9
CS11 Industrial	PROC10
CS12 Industrial	PROC13
CS13 Industrial	PROC15
CS14 Industrial	PROC19
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>Amount used, frequency and duration of use (or from service life)</i>	
Release type: Continuous release	
Emission days: 360 days per year	
<i>Technical and organisational conditions and measures</i>	
Control measures to prevent releases	
Treat air emission to provide the required removal efficiency of (%):	Air - minimum efficiency of: 90 %
<i>Conditions and measures related to treatment of waste (including article waste)</i>	
Waste treatment	
External treatment and disposal of waste should comply with applicable local and/or national regulations.	

1.2. 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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	

1.2. 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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	

1.2. 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. 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 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 Ensure operation is undertaken outdoors. For measures to control risks from physicochemical properties, refer to main body of the SDS, section 7 and/or 8.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166. Respiratory protection in accordance with EN141	
1.2. CS8: 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. CS9: 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. CS10: Worker Contributing Scenario: Industrial (PROC9)	
Process Categories	Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. CS11: 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. CS12: Worker Contributing Scenario: Industrial (PROC13)	
Process Categories	Treatment of articles by dipping and pouring (PROC13)

Product (article) characteristics	
Physical form of product: Liquid, vapour pressure > 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	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Ensure operation is undertaken outdoors.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. CS13: Worker Contributing Scenario: Industrial (PROC15)	
Process Categories	Use as laboratory reagent (PROC15)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure > 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	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Ensure operation is undertaken outdoors.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
1.2. CS14: Worker Contributing Scenario: Industrial (PROC19)	
Process Categories	Manual activities involving hand contact (PROC19)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure > 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	
Technical and organisational conditions and measures	
Technical and organisational measures	

Handle substance within a closed system.
Ensure operation is undertaken outdoors.

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

Personal protection

Wear suitable gloves tested to EN374.
Use eye protection according to EN 166.

1.3 Exposure estimation and reference to its source

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.01 ppm	EASY TRA v2.0	2E-05
dermal, systemic, long-term	0.34 mg/kg bw/day	EASY TRA v2.0	0.002

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	50 ppm	EASY TRA v2.0	0.1
dermal, systemic, long-term	1.37 mg/kg bw/day	EASY TRA v2.0	0.01

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	100 ppm	EASY TRA v2.0	0.2
dermal, systemic, long-term	0.34 mg/kg bw/day	EASY TRA v2.0	0.002

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	100 ppm	EASY TRA v2.0	0.2
dermal, systemic, long-term	6.86 mg/kg bw/day	EASY TRA v2.0	0.04

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	13.71 mg/kg bw/day	EASY TRA v2.0	0.07

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	25 ppm	EASY TRA v2.0	0.05
dermal, systemic, long-term	42.86 mg/kg bw/day	EASY TRA v2.0	0.23
inhalative, systemic, long-term	350 ppm	EASY TRA v2.0	0.7
inhalative, systemic, long-term	50 ppm	EASY TRA v2.0	0.1
dermal, systemic, long-term	2.14 mg/kg bw/day	EASY TRA v2.0	0.01

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	13.71 mg/kg bw/day	EASY TRA v2.0	0.07

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	150 ppm	EASY TRA v2.0	0.3
dermal, systemic, long-term	6.86 mg/kg bw/day	EASY TRA v2.0	0.037

1.3. CS10: Worker Contributing Scenario: Industrial (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	200 ppm	EASY TRA v2.0	0.4
dermal, systemic, long-term	6.86 mg/kg bw/day	EASY TRA v2.0	0.04

1.3. CS11: Worker Contributing Scenario: Industrial (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	27.43 mg/kg bw/day	EASY TRA v2.0	0.15

1.3. CS12: Worker Contributing Scenario: Industrial (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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inhalative, systemic, long-term	250 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	13.71 mg/kg bw/day	EASY TRA v2.0	0.07

1.3. CS13: Worker Contributing Scenario: Industrial (PROC15)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	50 ppm	EASY TRA v2.0	0.1
dermal, systemic, long-term	0.34 mg/kg bw/day	EASY TRA v2.0	0

1.3. CS14: Worker Contributing Scenario: Industrial (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	28.29 mg/kg bw/day	EASY TRA v2.0	0.15

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	Professional application of coatings and inks
Date - Version	28/08/2019 - 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	ERC6d - ERC8a - ERC8c - ERC8f
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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 - PROC8b - PROC9
CS6 General use from professional operators	PROC5 - PROC8a
CS7 General use from professional operators	PROC10
CS8 General use from professional operators	PROC11
CS9 General use from professional operators	PROC13
CS10 General use from professional operators	PROC19

2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Covered by (ERC6d, ERC8a, ERC8c, ERC8f)

Environmental release categories	Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article) - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC6d, ERC8a, ERC8c, ERC8f)
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Amount used, frequency and duration of use (or from service life)

Release type: Continuous release

Emission days: 360 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 %
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Conditions and measures related to treatment of waste (including article waste)

Waste treatment

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

2.2. 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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
2.2. 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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
2.2. 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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
2.2. CS5: Worker Contributing Scenario: General use from professional operators (PROC4, PROC8b, PROC9)	
Process Categories	Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC4, PROC8b, PROC9)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure > 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	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Ensure operation is undertaken outdoors.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
2.2. 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)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure > 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	
Technical and organisational conditions and measures	
Technical and organisational measures Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 4 hours per day.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
2.2. CS7: 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 > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 4 hours per day.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
2.2. CS8: 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 > 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 Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 4 hours per day. Limit the substance content in the product to 25 %. Avoid carrying out activities involving exposure for more than 1 hour per day.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166. Wear a respirator conforming to EN140.	
2.2. CS9: Worker Contributing Scenario: General use from professional operators (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 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**

Handle substance within a closed system.
Ensure operation is undertaken outdoors.

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

Wear suitable gloves tested to EN374.
Use eye protection according to EN 166.

2.2. CS10: 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 > 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

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

Handle substance within a closed system.
Ensure operation is undertaken outdoors.
Avoid carrying out activities involving exposure for more than 1 hour per day.
Limit the substance content in the product to 25 %.

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

Wear suitable gloves tested to EN374.
Use eye protection according to EN 166.

2.3 Exposure estimation and reference to its source**2.3. 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	0.01 ppm	EASY TRA v2.0	2E-05
dermal, systemic, long-term	0.34 mg/kg bw/day	EASY TRA v2.0	0.002

2.3. 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	50 ppm	EASY TRA v2.0	0.1
dermal, systemic, long-term	1.37 mg/kg bw/day	EASY TRA v2.0	0.01

2.3. 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	100 ppm	EASY TRA v2.0	0.2
dermal, systemic, long-term	0.34 mg/kg bw/day	EASY TRA v2.0	0.002

2.3. CS5: Worker Contributing Scenario: General use from professional operators (PROC4, PROC8b, PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	6.86 mg/kg bw/day	EASY TRA v2.0	0.04

2.3. 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	350 ppm	EASY TRA v2.0	0.7
dermal, systemic, long-term	13.71 mg/kg bw/day	EASY TRA v2.0	0.07
inhalative, systemic, long-term	300 ppm	EASY TRA v2.0	0.6
dermal, systemic, long-term	1.37 mg/kg bw/day	EASY TRA v2.0	0.007

2.3. CS7: Worker Contributing Scenario: General use from professional operators (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	1.37 mg/kg bw/day	EASY TRA v2.0	0.007

2.3. CS8: Worker Contributing Scenario: General use from professional operators (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	2.14 mg/kg bw/day	EASY TRA v2.0	0.01
inhalative, systemic, long-term	200 ppm	EASY TRA v2.0	0.4
dermal, systemic, long-term	64.28 mg/kg bw/day	EASY TRA v2.0	0.35
inhalative, systemic, long-term	252 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	107.14 mg/kg bw/day	EASY TRA v2.0	0.58

2.3. CS9: 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	250 ppm	EASY TRA v2.0	0.5
dermal, systemic, long-term	13.71 mg/kg bw/day	EASY TRA v2.0	0.07

2.3. CS10: 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	300 ppm	EASY TRA v2.0	0.6
dermal, systemic, long-term	16.97 mg/kg bw/day	EASY TRA v2.0	0.09

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; Various products (PC9b, PC9a, PC1, PC4, PC15)

3.1 TITLE SECTION

Exposure Scenario name	Consumer application of coatings
Date - Version	28/08/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Fillers, putties, plasters, modelling clay (PC9b) - Coatings and paints, thinners, paint removers (PC9a) - Adhesives, sealants (PC1) - Anti-freeze and de-icing products (PC4) - Non-metal surface treatment products (PC15) - Lubricants, greases, release products (PC24)

Environment Contributing Scenario

CS1 Covered by	ERC8a - ERC8c - ERC8d - ERC8f
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Consumer Contributing Scenario

CS2 Consumer	PC1
CS3 Consumer	PC1
CS4 Consumer	PC1
CS5 Consumer	PC4
CS6 Consumer	PC4
CS7 Consumer	PC4
CS8 Consumer	PC9a
CS9 Consumer	PC9a
CS10 Consumer	PC9a - PC15
CS11 Consumer	PC9a - PC15
CS12 Consumer	PC9b
CS13 Consumer	PC9b
CS14 Consumer	PC9b
CS15 Consumer	PC24
CS16 Consumer	PC31
CS17 Consumer	PC31

3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8c, ERC8d, ERC8f)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use leading to inclusion into/onto article (indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8a, ERC8c, ERC8d, ERC8f)
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Amount used, frequency and duration of use (or from service life)

Release type: Continuous release

Emission days: 360 days per year	
<i>Conditions and measures related to treatment of waste (including article waste)</i>	
Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.	
3.2. CS2: Consumer Contributing Scenario: Consumer (PC1)	
Product Categories	Adhesives, sealants (PC1)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 240 hPa	
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 9 g	
Duration: Exposure duration 4 h	
Frequency: Covers exposure up to 365 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Temperature: Covers use at ambient temperatures.	
Ventilation rate: Covers use under typical household ventilation.	
3.2. CS3: Consumer Contributing Scenario: Consumer (PC1)	
Product Categories	Adhesives, sealants (PC1)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 240 hPa	
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 6390 g	
Duration: Exposure duration 6 h	
Frequency: Covers exposure up to 1 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³	
Temperature: Covers use at ambient temperatures.	
Ventilation rate: Covers use under typical household ventilation.	

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

Product Categories	Adhesives, sealants (PC1)
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Product (article) characteristics

Physical form of product:

Aerosol

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 30 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 85.05 g

Duration:

Exposure duration 4 h

Frequency:

Covers exposure up to 6 days per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

3.2. CS5: Consumer Contributing Scenario: Consumer (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers percentage substance in the product up to 1 %.

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.5 g

Duration:

Exposure duration 0.02 h

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

3.2. CS6: Consumer Contributing Scenario: Consumer (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 10 %

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

Amount per use 2000 g

Duration:

Exposure duration 0.17 h

Frequency:

Covers exposure up to 365 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in a one car garage (>34 m³) under typical ventilation.**3.2. CS7: Consumer Contributing Scenario: Consumer (PC4)****Product Categories**

Anti-freeze and de-icing products (PC4)

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

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 4 g

Duration:

Exposure duration 0.25 h

Frequency:

Covers exposure up to 365 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in a one car garage (>34 m³) under typical ventilation.**3.2. CS8: Consumer Contributing Scenario: Consumer (PC9a)****Product Categories**

Coatings and paints, thinners, paint removers (PC9a)

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

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 1.5 %

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

Amount per use 2760 g

Duration:

Exposure duration 2.2 h

Frequency:

Covers exposure up to 4 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**3.2. CS9: Consumer Contributing Scenario: Consumer (PC9a)****Product Categories**

Coatings and paints, thinners, paint removers (PC9a)

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

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 27.5 %

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

Amount per use 744 g

Duration:

Exposure duration 2.2 h

Frequency:

Covers exposure up to 6 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**3.2. CS10: Consumer Contributing Scenario: Consumer (PC9a, PC15)****Product Categories**

Coatings and paints, thinners, paint removers - Non-metal surface treatment products (PC9a, PC15)

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

Aerosol

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 215 g

Duration:

Exposure duration 0.33 h

Frequency:

Covers exposure up to 2 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in a one car garage (>34 m³) under typical ventilation.

3.2. CS11: Consumer Contributing Scenario: Consumer (PC9a, PC15)

Product Categories	Coatings and paints, thinners, paint removers - Non-metal surface treatment products (PC9a, PC15)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 2 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 491 g

Duration:

Exposure duration 2 h

Frequency:

Covers exposure up to 3 days per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

3.2. CS12: Consumer Contributing Scenario: Consumer (PC9b)

Product Categories	Fillers, putties, plasters, modelling clay (PC9b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 27.5 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 85 g

Duration:

Exposure duration 4 h

Frequency:

Covers exposure up to 12 days per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

3.2. CS13: Consumer Contributing Scenario: Consumer (PC9b)

Product Categories	Fillers, putties, plasters, modelling clay (PC9b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 2 %

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

Amount per use 13800 g

Duration:

Exposure duration 2 h

Frequency:

Covers exposure up to 365 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**3.2. CS14: Consumer Contributing Scenario: Consumer (PC9b)****Product Categories**

Fillers, putties, plasters, modelling clay (PC9b)

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

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 1.35 g

Frequency:

Covers exposure up to 365 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**3.2. CS15: Consumer Contributing Scenario: Consumer (PC24)****Product Categories**

Lubricants, greases, release products (PC24)

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

Aerosol

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 73 g

Duration:

Exposure duration 0.17 h

Frequency:

Covers exposure up to 6 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**3.2. CS16: Consumer Contributing Scenario: Consumer (PC31)****Product Categories**

Polishes and wax blends (PC31)

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

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 142 g

Duration:

Exposure duration 1.23 h

Frequency:

Covers exposure up to 29 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**3.2. CS17: Consumer Contributing Scenario: Consumer (PC31)****Product Categories**

Polishes and wax blends (PC31)

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

Aerosol

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 35 g

Duration:

Exposure duration 0.33 h

Frequency:

Covers exposure up to 8 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.

3.3 Exposure estimation and reference to its source

N/A

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	Cleaning agent
Date - Version	28/08/2019 - 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 - PROC8a
CS7 Industrial	PROC7
CS8 Industrial	PROC8b
CS9 Industrial	PROC9
CS10 Industrial	PROC10
CS11 Industrial	PROC13
CS12 Industrial	PROC19

4.2 Conditions of use affecting exposure

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

Release type: Continuous release

Emission days: 360 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 %
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Conditions and measures related to treatment of waste (including article waste)

Waste treatment

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

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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
4.2. 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
4.2. CS6: Worker Contributing Scenario: Industrial (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 > 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
4.2. CS7: Worker Contributing Scenario: Industrial (PROC7)	
Process Categories	Industrial spraying (PROC7)

Product (article) characteristics	
Physical form of product: Liquid, vapour pressure > 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	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Ensure operation is undertaken outdoors. Fill containers/cans at dedicated fill points supplied with local extract ventilation. Use of an integrated local exhaust ventilation is required.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166. Wear a respirator conforming to EN140.	
4.2. CS8: 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 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	
Technical and organisational conditions and measures	
Technical and organisational measures Handle substance within a closed system. Ensure operation is undertaken outdoors.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
4.2. CS9: Worker Contributing Scenario: Industrial (PROC9)	
Process Categories	Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)
Product (article) characteristics	
Physical form of product: Liquid, vapour pressure > 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	

<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
4.2. 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
4.2. 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 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 Handle substance within a closed system. Ensure operation is undertaken outdoors.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
4.2. CS12: Worker Contributing Scenario: Industrial (PROC19)	
Process Categories	Manual activities involving hand contact (PROC19)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure > 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

Technical and organisational conditions and measures

Technical and organisational measures

Handle substance within a closed system.

Ensure operation is undertaken outdoors.

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

Personal protection

Wear suitable gloves tested to EN374.

Use eye protection according to EN 166.

4.3 Exposure estimation and reference to its source

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	0.01 ppm	ECETOC TRA worker v2.0	2E-05
dermal, systemic, long-term	0.34 mg/kg bw/day	ECETOC TRA worker v2.0	0.002

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	50 ppm	ECETOC TRA worker v2.0	0.1
dermal, systemic, long-term	1.37 mg/kg bw/day	ECETOC TRA worker v2.0	0.01

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	100 ppm	ECETOC TRA worker v2.0	0.2
dermal, systemic, long-term	0.34 mg/kg bw/day	ECETOC TRA worker v2.0	0.002

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	100 ppm	ECETOC TRA worker v2.0	0.2

dermal, systemic, long-term	6.86 mg/kg bw/day	ECETOC TRA worker v2.0	0.04
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4.3. CS6: Worker Contributing Scenario: Industrial (PROC5, PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	ECETOC TRA worker v2.0	0.5
dermal, systemic, long-term	13.71 mg/kg bw/day	ECETOC TRA worker v2.0	0.07

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	350 ppm	ECETOC TRA worker v2.0	0.7
dermal, systemic, long-term	2.14 mg/kg bw/day	ECETOC TRA worker v2.0	0.01

4.3. CS8: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	150 ppm	ECETOC TRA worker v2.0	0.3
dermal, systemic, long-term	6.86 mg/kg bw/day	ECETOC TRA worker v2.0	0.037

4.3. CS9: Worker Contributing Scenario: Industrial (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	200 ppm	ECETOC TRA worker v2.0	0.4
dermal, systemic, long-term	6.86 mg/kg bw/day	ECETOC TRA worker v2.0	0.04

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	ECETOC TRA worker v2.0	0.5
dermal, systemic, long-term	27.43 mg/kg bw/day	ECETOC TRA worker v2.0	0.15

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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inhalative, systemic, long-term	250 ppm	ECETOC TRA worker v2.0	0.5
dermal, systemic, long-term	13.71 mg/kg bw/day	ECETOC TRA worker v2.0	0.074

4.3. CS12: Worker Contributing Scenario: Industrial (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	ECETOC TRA worker v2.0	0.5
dermal, systemic, long-term	28.29 mg/kg bw/day	ECETOC TRA worker v2.0	0.15

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	Cleaning agent
Date - Version	28/08/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses

Environment Contributing Scenario

CS1 Covered by	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 - PROC8b - PROC9
CS6 General use from professional operators	PROC5 - PROC8a
CS7 General use from professional operators	PROC10
CS8 General use from professional operators	PROC11
CS9 General use from professional operators	PROC19

5.2 Conditions of use affecting exposure

5.2. 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)
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Amount used, frequency and duration of use (or from service life)

Release type: Continuous release

Emission days: 360 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 %
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Conditions and measures related to treatment of waste (including article waste)

Waste treatment

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

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 > 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 Handle substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	

5.2. CS5: Worker Contributing Scenario: General use from professional operators (PROC4, PROC8b, PROC9)

Process Categories

Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC4, PROC8b, PROC9)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure > 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

Technical and organisational conditions and measures

Technical and organisational measures

Handle substance within a closed system.

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

Personal protection

Wear suitable gloves tested to EN374.

Use eye protection according to EN 166.

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)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure > 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

Technical and organisational conditions and measures

Technical and organisational measures

Avoid carrying out activities involving exposure for more than 4 hours per day.

Ensure operation is undertaken outdoors.

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

Personal protection

Wear suitable gloves tested to EN374.

Use eye protection according to EN 166.

5.2. CS7: Worker Contributing Scenario: General use from professional operators (PROC10)

Process Categories

Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure > 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	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Handle substance within a closed system. Limit the substance content in the product to 25 %. Avoid carrying out activities involving exposure for more than 4 hours per day.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	
5.2. CS8: 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 > 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 Handle substance within a closed system. Avoid carrying out activities involving exposure for more than 1 hour per day.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166. Wear a respirator conforming to EN140.	
5.2. CS9: Worker Contributing Scenario: General use from professional operators (PROC19)	
Process Categories	Manual activities involving hand contact (PROC19)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure > 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 Handle substance within a closed system. Avoid carrying out activities involving exposure for more than 1 hour per day. Limit the substance content in the product to 25 %.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Use eye protection according to EN 166.	

Wear a respirator conforming to EN140.

5.3 Exposure estimation and reference to its source

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	0.01 ppm	ECETOC TRA worker v2.0	2E-05
dermal, systemic, long-term	0.34 mg/kg bw/day	ECETOC TRA worker v2.0	0.002

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	50 ppm	ECETOC TRA worker v2.0	0.1
dermal, systemic, long-term	1.37 mg/kg bw/day	ECETOC TRA worker v2.0	0.01

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	100 ppm	ECETOC TRA worker v2.0	0.2
dermal, systemic, long-term	0.34 mg/kg bw/day	ECETOC TRA worker v2.0	0.002

5.3. CS5: Worker Contributing Scenario: General use from professional operators (PROC4, PROC8b, PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	250 ppm	ECETOC TRA worker v2.0	0.5
dermal, systemic, long-term	6.86 mg/kg bw/day	ECETOC TRA worker v2.0	0.04

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	100 ppm	ECETOC TRA worker v2.0	0.2
dermal, systemic, long-term	13.71 mg/kg bw/day	ECETOC TRA worker v2.0	0.07

5.3. CS7: Worker Contributing Scenario: General use from professional operators (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
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inhalative, systemic, long-term	100 ppm	ECETOC TRA worker v2.0	0.2
dermal, systemic, long-term	27.43 mg/kg bw/day	ECETOC TRA worker v2.0	0.15

5.3. CS8: 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	300 ppm	ECETOC TRA worker v2.0	0.6
dermal, systemic, long-term	107.14 mg/kg bw/day	ECETOC TRA worker v2.0	0.58

5.3. CS9: 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	300 ppm	ECETOC TRA worker v2.0	0.6
dermal, systemic, long-term	16.97 mg/kg bw/day	ECETOC TRA worker v2.0	0.09

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 Consumer use; Various products (PC9b, PC9a, PC3, PC4, PC24)

6.1 TITLE SECTION

Exposure Scenario name	Cleaning agent
Date - Version	28/08/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Fillers, putties, plasters, modelling clay (PC9b) - Coatings and paints, thinners, paint removers (PC9a) - Air care products (PC3) - Anti-freeze and de-icing products (PC4) - Lubricants, greases, release products (PC24) - Polymer preparations and compounds (PC32) - Washing and cleaning products (PC35) - Welding and soldering products, flux products (PC38)

Environment Contributing Scenario

CS1 Covered by	ERC8d
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Consumer Contributing Scenario

CS2 Consumer	PC3
CS3 Consumer	PC3
CS4 Consumer	PC4
CS5 Consumer	PC4
CS6 Consumer	PC4
CS7 Consumer	PC9a
CS8 Consumer	PC9a
CS9 Consumer	PC9a
CS10 Consumer	PC9a
CS11 Consumer	PC9b
CS12 Consumer	PC9b
CS13 Consumer	PC9b
CS14 Consumer	PC9c
CS15 Consumer	PC24
CS16 Consumer	PC24
CS17 Consumer	PC24
CS18 Consumer	PC35
CS19 Consumer	PC35
CS20 Consumer	PC38

6.2 Conditions of use affecting exposure

6.2. CS1: Environment Contributing Scenario: Covered by (ERC8d)

Environmental release	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
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categories	(ERC8d)
<i>Amount used, frequency and duration of use (or from service life)</i>	
Release type: Continuous release	
Emission days: 360 days per year	
<i>Conditions and measures related to treatment of waste (including article waste)</i>	
Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.	
6.2. CS2: Consumer Contributing Scenario: Consumer (PC3)	
Product Categories	Air care products (PC3)
<i>Product (article) characteristics</i>	
Physical form of product: Aerosol	
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 0.1 g	
Duration: Exposure duration 0.25 h	
Frequency: Covers exposure up to 365 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Temperature: Covers use at ambient temperatures. Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 6600 cm ²	
6.2. CS3: Consumer Contributing Scenario: Consumer (PC3)	
Product Categories	Air care products (PC3)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 240 hPa	
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 0.48 g	
Duration: Exposure duration 8 h	
Frequency: Covers exposure up to 365 days per year	

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 35.7 cm²

6.2. CS4: Consumer Contributing Scenario: Consumer (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers percentage substance in the product up to 1 %.

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 0.5 g

Duration:

Exposure duration 0.02 h

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

6.2. CS5: Consumer Contributing Scenario: Consumer (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 10 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 2400 g

Duration:

Exposure duration 0.17 h

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Additional conditions human health

Covers skin contact area up to 428 cm²

6.2. CS6: Consumer Contributing Scenario: Consumer (PC4)

Product Categories	Anti-freeze and de-icing products (PC4)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 50 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 4 g

Duration:

Exposure duration 0.25 h

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Additional conditions human health

Covers skin contact area up to 214.4 cm²

6.2. CS7: Consumer Contributing Scenario: Consumer (PC9a)

Product Categories	Coatings and paints, thinners, paint removers (PC9a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 1.5 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 2760 g

Duration:

Exposure duration 2.2 h

Frequency:

Covers exposure up to 4 days per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 428.75 cm²

6.2. CS8: Consumer Contributing Scenario: Consumer (PC9a)

Product Categories	Coatings and paints, thinners, paint removers (PC9a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 27.5 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 744 g

Duration:

Exposure duration 2.2 h

Frequency:

Covers exposure up to 6 days per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 428.75 cm²

6.2. CS9: Consumer Contributing Scenario: Consumer (PC9a)

Product Categories	Coatings and paints, thinners, paint removers (PC9a)
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Product (article) characteristics

Physical form of product:

Aerosol

Concentration of substance in product:

Covers concentrations up to 50 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 215 g

Duration:

Exposure duration 0.33 min

Frequency:

Covers exposure up to 2 days per year

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Additional conditions human health

Covers skin contact area up to 6600 cm²

6.2. CS10: Consumer Contributing Scenario: Consumer (PC9a)

Product Categories	Coatings and paints, thinners, paint removers (PC9a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 491 g

Duration:

Exposure duration 2 h

Frequency:

Covers exposure up to 3 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**Additional conditions human health**Covers skin contact area up to 857.5 cm²**6.2. CS11: Consumer Contributing Scenario: Consumer (PC9b)****Product Categories**

Fillers, putties, plasters, modelling clay (PC9b)

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

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 2 %

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

Amount per use 85 g

Duration:

Exposure duration 4 h

Frequency:

Covers exposure up to 12 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**Additional conditions human health**Covers skin contact area up to 35.73 cm²**6.2. CS12: Consumer Contributing Scenario: Consumer (PC9b)****Product Categories**

Fillers, putties, plasters, modelling clay (PC9b)

Product (article) characteristics

Physical form of product: Liquid	
Vapour pressure: 240 hPa	
Concentration of substance in product: Covers concentrations up to 2 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 13800 g	
Duration: Exposure duration 2 h	
Frequency: Covers exposure up to 12 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Temperature: Covers use at ambient temperatures. Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 857.5 cm ²	
6.2. CS13: Consumer Contributing Scenario: Consumer (PC9b)	
Product Categories	Fillers, putties, plasters, modelling clay (PC9b)
<i>Product (article) characteristics</i>	
Physical form of product: Solid in solution	
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 1 g	
Duration: Exposure duration 8 h	
Frequency: Covers exposure up to 365 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Temperature: Covers use at ambient temperatures. Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 254.4 cm ²	
6.2. CS14: Consumer Contributing Scenario: Consumer	
Product (Sub-)Categories	Finger paints (PC9c)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers concentrations up to 50 %

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

Amount per use 1.35 g

Duration:

Exposure duration 8 h

Frequency:

Covers exposure up to 365 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**Additional conditions human health**Covers skin contact area up to 254.4 cm²

Avoid using at a product concentration greater than 5 %

6.2. CS15: Consumer Contributing Scenario: Consumer (PC24)**Product Categories**

Lubricants, greases, release products (PC24)

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

Liquid

Vapour pressure:

240 hPa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Amount per use 2200 g

Duration:

Exposure duration 0.17 h

Frequency:

Covers exposure up to 4 days per year

*Other conditions affecting consumers exposure***Room size:** Covers use in a one car garage (>34 m³) under typical ventilation.**Additional conditions human health**Covers skin contact area up to 468 cm²**6.2. CS16: Consumer Contributing Scenario: Consumer (PC24)****Product Categories**

Lubricants, greases, release products (PC24)

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

Liquid

Vapour pressure:

240 hPa	
Concentration of substance in product: Covers concentrations up to 20 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Amount per use 34 g	
Duration: Exposure duration 8 h	
Frequency: Covers exposure up to 10 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Temperature: Covers use at ambient temperatures. Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 468 cm ²	
6.2. CS17: Consumer Contributing Scenario: Consumer (PC24)	
Product Categories	Lubricants, greases, release products (PC24)
<i>Product (article) characteristics</i>	
Physical form of product: Aerosol	
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 73 g	
Duration: Exposure duration 0.17 h	
Frequency: Covers exposure up to 6 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Temperature: Covers use at ambient temperatures. Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 428.75 cm ²	
6.2. CS18: Consumer Contributing Scenario: Consumer (PC35)	
Product Categories	Washing and cleaning products (PC35)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 240 hPa	
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	
Frequency: Covers exposure up to 365 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Temperature: Covers use at ambient temperatures. Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 857.5 cm ²	
6.2. CS19: Consumer Contributing Scenario: Consumer (PC35)	
Product Categories	Washing and cleaning products (PC35)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 240 hPa	
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 27 g	
Duration: Exposure duration 0.33 h	
Frequency: Covers exposure up to 128 days per year	
<i>Other conditions affecting consumers exposure</i>	
Room size: Covers use in room size of 20 m ³ Temperature: Covers use at ambient temperatures. Ventilation rate: Covers use under typical household ventilation.	
Additional conditions human health Covers skin contact area up to 857.5 cm ²	
6.2. CS20: Consumer Contributing Scenario: Consumer (PC38)	
Product Categories	Welding and soldering products, flux products (PC38)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: 240 hPa	
Concentration of substance in product:	

Covers concentrations up to 20 %

Amount used, frequency and duration of use/exposure

Amounts used:

Amount per use 12 g

Duration:

Exposure duration 1 h

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Room size: Covers use in room size of 20 m³

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

Additional conditions human health

Covers skin contact area up to 6600 cm²

6.3 Exposure estimation and reference to its source

N/A

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.