



Sicherheitsdatenblatt vom 24/9/2019, version 17

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

1.1. Produktidentifikator

Kennzeichnung der Mischung:

Handelsname: SVITOL SPRAY ML 400

Handelscode: 4128

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

Empfohlene Verwendung:

Schmiermittel in Sprayform

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)

Centro Antiveleni di Pavia IRCCS- Fondazione Maugeri tel. +39 (0)382 24444 (h24; it, en)

Giftnotruf Berlin: +49 30 30686790

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):

⚠ Achtung, Aerosols 2, Entzündbares Aerosol. Behälter steht unter Druck: Kann bei Erwärmung bersten.

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

EUH066 Wiederholter Kontakt kann zu spröder oder rissiger Haut führen.

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

Keine weiteren Risiken

2.2. Kennzeichnungselemente

Gefahrenpiktogramme:



Achtung

Gefahrenhinweise:

H223+H229 Entzündbares Aerosol. Behälter steht unter Druck: Kann bei Erwärmung bersten.

H336 Kann Schläfrigkeit und Benommenheit verursachen.

Sicherheitshinweise:

P101 Ist ärztlicher Rat erforderlich, Verpackung oder Kennzeichnungsetikett bereithalten.

P102 Darf nicht in die Hände von Kindern gelangen.

P103 Vor Gebrauch Kennzeichnungsetikett lesen.

P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen sowie anderen

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Zünd-quellenarten 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:

EUH066 Wiederholter Kontakt kann zu spröder oder rissiger Haut führen.

Enthält

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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

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

Produktinhaltsstoffe:

Aliphatische Kohlenwasserstoffe > 30 %

2.3. Sonstige Gefahren

vPvB-Stoffe: Keine - PBT-Stoffe: Keine

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:

>= 60% - < 70% Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

REACH No.: 01-2119463258-33, CAS: 64742-48-9, EC: 919-857-5

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 3.8/3 STOT SE 3 H336

EUH066

DECLP (CLP)*

>= 3% - < 5% Diossido di carbonio liquido refrigerato

CAS: 124-38-9, EC: 204-696-9

⚠ 2.5/RL Press. Gas (Ref. Liq.) H281

>= 1% - < 2% Benzenesulfonic acid, mono-C16-24-alkyl derivs, calcium salts

REACH No.: 01-2119492616-28, CAS: 70024-69-0, EC: 274-263-7

⚠ 3.3/2 Eye Irrit. 2 H319

>= 0.5% - < 1% Minearal oil

REACH No.: 01-2119484627-25, CAS: 64742-54-7, EC: 265-157-1

⚠ 3.10/1 Asp. Tox. 1 H304

DECLL (CLP)*

>= 0.1% - < 0.25% Mineral oil - mixture -

REACH No.: 01-2119487077-29, EC: 265-158-7

⚠ 3.10/1 Asp. Tox. 1 H304

>= 0.1% - < 0.25% 2,6-di-tert-butylphenol

REACH No.: 01-2119490822-33, CAS: 128-39-2, EC: 204-884-0

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- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 4.1/A1 Aquatic Acute 1 H400
- ⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 0.02% - < 0.05% 2-Ethylhexan-1-ol
REACH No.: 01-2119487289-20, CAS: 104-76-7, EC: 203-234-3

- ⚠ 3.1/4/Inhal Acute Tox. 4 H332
- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 3.3/2 Eye Irrit. 2 H319
- ⚠ 3.8/3 STOT SE 3 H335

*DECLP (CLP): Stoff eingestuft gemäß Anmerkung P im Anhang VI der Verordnung 1272/2008/EG. Die Einstufung als karzinogen oder keimzellmutagen ist nicht zwingend, wenn nachgewiesen werden kann, dass der Stoff weniger als 0,1 Gewichtsprozent Benzol (Einecs-Nr. 200-753-7) enthält. Ist der Stoff nicht als karzinogen eingestuft, so sind zumindest die Sicherheitshinweise (P102-)P260-P262-P301 + P310-P331 anzuwenden. Diese Anmerkung gilt nur für bestimmte komplexe Ölderivate in Teil 3.

*DECLL (CLP): Stoff eingestuft gemäß Anmerkung L im Anhang VI der Verordnung 1272/2008/EG. Die Einstufung als karzinogen ist nicht zwingend, wenn nachgewiesen werden kann, dass der Stoff weniger als 3% DMSO-Extrakt, gemessen nach dem Verfahren IP 346 ("Bestimmung der polyzyklischen Aromate in nicht verwendeten Schmierölen und asphaltfreien Erdölfractionen — Dimethylsulfoxid-Extraktion-Brechungsindex-Methode", Institute of Petroleum, London), enthält. Diese Anmerkung gilt nur für bestimmte komplexe Ölderivate in Teil 3.

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.

Nach Augenkontakt:

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

Nach Verschlucken:

Auf keinen Fall Erbrechen herbeiführen. SOFORT ARZT ZUZIEHEN.

Nach Einatmen:

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

4.2. Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Keine

4.3. Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

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.

Mit Pulver.

Schaum

Wasserdampf.

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
Geeignete Atemgeräte verwenden.
Das kontaminierte Löschwasser getrennt auffangen. Nicht in der Abwasserleitung entsorgen.
Wenn im Rahmen der Sicherheit möglich, die unbeschädigten Behälter aus der unmittelbaren Gefahrenzone entfernen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- 6.1. Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren
Die persönliche Schutzausrüstung tragen.
Alle Entzündungsquellen entfernen.
Die Personen an einen sicheren Ort bringen.
Die in Punkt 7 und 8 aufgeführten Schutzmaßnahmen beachten.
- 6.2. Umweltschutzmaßnahmen
Das Eindringen in den Boden/Unterboden verhindern. Das Abfließen in das Grundwasser oder in die Kanalisation verhindern.
Das kontaminierte Waschwasser auffangen und entsorgen.
Bei Austritt von Gas oder bei Eintritt in Wasserläufe, den Boden oder die Kanalisation die zuständigen Behörden informieren.
Geeignetes Material zum Auffangen: absorbierende oder organische Materialien, Sand
- 6.3. Methoden und Material für Rückhaltung und Reinigung
Mit reichlich Wasser waschen.
- 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.
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
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
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9
ACGIH - TWA: 1200 mg/m³, 197 ppm

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Dioossido di carbonio liquido refrigerato - CAS: 124-38-9
EU - TWA(8h): 9000 mg/m³, 5000 ppm
ACGIH - TWA(8h): 5000 ppm - STEL: 30000 ppm - Anmerkungen: Asphyxia

Mineral oil - CAS: 64742-54-7
EU - TWA: 5 mg/m³

Mineral oil - mixture -
EU - TWA(8h): 5 mg/m³

2-Ethylhexan-1-ol - CAS: 104-76-7
EU - TWA(8h): 5.4 mg/m³, 1 ppm

DNEL-Expositionsgrenzwerte

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9

Arbeitnehmer Gewerbe: 208 mg/kg - Exposition: Mensch - dermal - Häufigkeit:

Langfristig, systemische Auswirkungen

Arbeitnehmer Gewerbe: 871 mg/m³ - Exposition: Mensch - Inhalation - Häufigkeit:

Langfristig, systemische Auswirkungen

Verbraucher: 125 mg/kg - Exposition: Mensch - dermal - Häufigkeit: Langfristig,
systemische Auswirkungen

Verbraucher: 185 mg/m³ - Exposition: Mensch - Inhalation - Häufigkeit: Langfristig,
systemische Auswirkungen

Verbraucher: 125 mg/kg - Exposition: Mensch - oral - Häufigkeit: Langfristig, systemische
Auswirkungen

PNEC-Expositionsgrenzwerte

N.A.

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.

Atemschutz:

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
Aussehen und Farbe:	Flüssig sotto pressione (Aerosol)	--	--
Geruch:	charakteristisc h	--	--
Geruchsschwelle:	N.A.	--	--
pH:	N.A.	--	--

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Schmelzpunkt/ Gefrierpunkt:	N.A.	--	--
Unterer Siedepunkt und Siedeintervall:	> 150 °C (fase liquida)	--	--
Flammpunkt:	44,5°C (fase liquida)	--	--
Verdampfungsgeschwindig keit:	N.A.	--	--
Entzündbarkeit Festkörper/ Gas:	N.A.	--	--
Oberer/unterer Flamm- bzw. Explosionspunkt:	N.A.	--	--
Dampfdruck:	N.A.	--	--
Dampfdichte:	N.A.	--	--
Dichtezahl:	0.830 g/cm3	--	--
Wasserlöslichkeit:	unlöslich	--	--
Löslichkeit in Öl:	N.A.	--	--
Partitionskoeffizient (n- Oktanol/Wasser):	N.A.	--	--
Selbstentzündungstempera tur:	N.A.	--	--
Zerfalltemperatur:	N.A.	--	--
Viskosität:	N.A.	--	--
Explosionsgrenzen:	N.A.	--	--
Oxidierende Eigenschaften:	N.A.	--	--

9.2. Sonstige Angaben

Eigenschaft	Wert	Methode:	Anmerkungen
Mischbarkeit:	N.A.	--	--
Fettlöslichkeit:	N.A.	--	--
Leitfähigkeit:	N.A.	--	--
Typische Eigenschaften der Stoffgruppen	N.A.	--	--



ABSCHNITT 10: Stabilität und Reaktivität

- 10.1. Reaktivität
Stabil unter Normalbedingungen
- 10.2. Chemische Stabilität
Stabil unter Normalbedingungen
- 10.3. Möglichkeit gefährlicher Reaktionen
Keine
- 10.4. Zu vermeidende Bedingungen
Unter normalen Umständen stabil.
- 10.5. Unverträgliche Materialien
Kontakt mit brandfördernden Materialien vermeiden. Das Produkt könnte in Brand geraten.
- 10.6. Gefährliche Zersetzungsprodukte
Bei der thermischen Zersetzung oder Verbrennung können Rauch, Kohlenmonoxid, Kohlendioxid, Schwefeloxide, Mercaptane, Sulfide, inbegriffen Schwefelwasserstoff, und andere Produkte einer unvollkommenen Verbrennung freigesetzt werden.
Bei der thermischen Zersetzung können Phosphoroxide und andere Phosphor enthaltene Verbindungen entstehen.

ABSCHNITT 11: Toxikologische Angaben

11.1. Angaben zu toxikologischen Wirkungen

Toxikologische Informationen zum Produkt:

SVITOL SPRAY ML 400

a) akute Toxizität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

b) Ätz-/Reizwirkung auf die Haut

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

c) schwere Augenschädigung/-reizung

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

d) Sensibilisierung der Atemwege/Haut

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

e) Keimzell-Mutagenität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

f) Karzinogenität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

g) Reproduktionstoxizität

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

h) spezifische Zielorgan-Toxizität bei einmaliger Exposition

Das Produkt ist eingestuft: STOT SE 3 H336

i) spezifische Zielorgan-Toxizität bei wiederholter Exposition

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

j) Aspirationsgefahr

Nicht klassifiziert

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Toxikologische Informationen zu den Hauptbestandteilen des Produkts:

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9

a) akute Toxizität:

Test: LC50 - Weg: Einatmen - Spezies: Ratte > 5000 mg/m³ - Laufzeit: 4h - Quelle:

ECHA BP - SUPPLIER SDS

Test: LD50 - Weg: Oral - Spezies: Ratte > 5000 mg/kg - Quelle: ECHA BP - SUPPLIER



- SDS
Test: LD50 - Weg: Haut - Spezies: Kaninchen > 5000 mg/kg - Quelle: ECHA BP - SUPPLIER SDS
- h) spezifische Zielorgan-Toxizität bei einmaliger Exposition:
Test: oecd 12 Positiv - Quelle: SUPPLIER SDS - Keine Daten vorhanden
- i) spezifische Zielorgan-Toxizität bei wiederholter Exposition:
Test: oecd 7 Negativ - Quelle: SUPPLIER SDS
Test: NOAEL - Weg: Oral - Spezies: Ratte > 1000 mg/kg - Quelle: ECHA BP
Test: NOAEL - Weg: Einatmen - Spezies: Ratte 200 ppm - Quelle: ECHA BP
Test: NOAEC - Weg: Einatmen - Spezies: Ratte > 275 mg/m³ - Quelle: ECHA BP
- j) Aspirationsgefahr:
Test: oecd 14 - Weg: Oral - Quelle: SUPPLIER SDS
Mineral oil - CAS: 64742-54-7
- f) Karzinogenität:
Negativ
- h) spezifische Zielorgan-Toxizität bei einmaliger Exposition:
Test: Reizt die Atemwege Positiv
- j) Aspirationsgefahr:
Test: oecd 14 Positiv
Mineral oil - mixture -
- h) spezifische Zielorgan-Toxizität bei einmaliger Exposition:
Test: Reizt die Atemwege Positiv
2,6-di-tert-butylphenol - CAS: 128-39-2
- h) spezifische Zielorgan-Toxizität bei einmaliger Exposition:
Test: Reizt die Atemwege Positiv
- i) spezifische Zielorgan-Toxizität bei wiederholter Exposition:
Test: oecd 16 - Weg: Oral - Spezies: Ratte Positiv
2-Ethylhexan-1-ol - CAS: 104-76-7
- d) Sensibilisierung der Atemwege/Haut:
Test: Sensibilisierung der Haut Negativ
- e) Keimzell-Mutagenität:
Test: Mutagenese Negativ
- g) Reproduktionstoxizität:
Test: Toxizität bei der Reproduktion - Weg: Haut - Spezies: Ratte Negativ
- h) spezifische Zielorgan-Toxizität bei einmaliger Exposition:
Test: Reizt die Atemwege Positiv
- i) spezifische Zielorgan-Toxizität bei wiederholter Exposition:
Test: oecd 16 - Weg: Haut - Spezies: Ratte Positiv

ABSCHNITT 12: Umweltbezogene Angaben

12.1. Toxizität

Im Einklang mit der GLP verwenden, nicht herumliegen lassen.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9

a) Akute aquatische Toxizität:

Endpunkt: EL0 - Spezies: Daphnia 1000 mg/l - Dauer / h: 48

Endpunkt: EL50 - Spezies: Algen > 1000 mg/l - Dauer / h: 72

Endpunkt: LL50 - Spezies: Fische > 1000 mg/l - Dauer / h: 96

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

Mineral oil - CAS: 64742-54-7

a) Akute aquatische Toxizität:

Endpunkt: LC50 - Spezies: Fische > 100 mg/l - Dauer / h: 96

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

Endpunkt: EC50 - Spezies: Daphnia > 10 mg/l - Dauer / h: 48

Endpunkt: EC50 - Spezies: Daphnia > 10 mg/l - Dauer / h: 48

Endpunkt: EC50 - Spezies: Algen > 100 mg/l - Dauer / h: 96

Mineral oil - mixture -



- a) Akute aquatische Toxizität:
Endpunkt: LC50 - Spezies: Fische > 1000 mg/l - Dauer / h: 96
Endpunkt: EC50 - Spezies: Daphnia > 10000 mg/l - Dauer / h: 48
Endpunkt: EC50 - Spezies: Daphnia > 10 mg/l - Dauer / h: 504
Endpunkt: NOEC - Spezies: Daphnia > 10 mg/l - Dauer / h: 504
Endpunkt: EC50 - Spezies: Algen > 100 mg/l - Dauer / h: 72
2,6-di-tert-butylphenol - CAS: 128-39-2
- a) Akute aquatische Toxizität:
Endpunkt: LC50 - Spezies: Fische 1.4 mg/l - Dauer / h: 96
Endpunkt: LC50 - Spezies: Fische 13 mg/l - Dauer / h: 96
Endpunkt: EC50 - Spezies: Daphnia 0.45 mg/l - Dauer / h: 48
Endpunkt: EC50 - Spezies: Daphnia 0.8 mg/l - Dauer / h: 48
Endpunkt: EC50 - Spezies: Algen 3.6 mg/l - Dauer / h: 72
- c) Bakterientoxizität:
Endpunkt: EC50 - Spezies: fanghi > 1000 mg/l - Dauer / h: 2.4
2-Ethylhexan-1-ol - CAS: 104-76-7
- a) Akute aquatische Toxizität:
Endpunkt: LC50 - Spezies: Fische 28.2 mg/l - Dauer / h: 96
Endpunkt: NOEC - Spezies: Fische 14 mg/l - Dauer / h: 96
Endpunkt: LC50 - Spezies: Fische 17.1 mg/l - Dauer / h: 96
Endpunkt: EC50 - Spezies: Daphnia 39 mg/l - Dauer / h: 48
Endpunkt: EC50 - Spezies: Algen 16.6 mg/l - Dauer / h: 72
- c) Bakterientoxizität:
Endpunkt: EC50 - Spezies: fanghi 540 mg/l - Dauer / h: 2.4
Endpunkt: EC50 - Spezies: fanghi > 100 mg/l - Dauer / h: 12
- 12.2. Persistenz und Abbaubarkeit
Keine
SVITOL SPRAY ML 400
Biologische Abbaubarkeit: Biologisch abbaubar - %: 86.7 - Anmerkungen: CEC L-33-T-82
Mineral oil - CAS: 64742-54-7
Test: BIOGDG06 - Dauer / h: 28gg - %: 31
Mineral oil - mixture -
Test: BIOGDG06 - Dauer / h: 28gg - %: 31
2,6-di-tert-butylphenol - CAS: 128-39-2
Test: BIOGDG06 - Dauer / h: 28gg - %: 5
2-Ethylhexan-1-ol - CAS: 104-76-7
Test: BIOGDG07 - Dauer / h: 28gg - %: 95
Test: BIOGDG09 - Dauer / h: 28gg - %: 100
- 12.3. Bioakkumulationspotenzial
2,6-di-tert-butylphenol - CAS: 128-39-2
Test: Kow - Verteilungskoeffizient 4.5
2-Ethylhexan-1-ol - CAS: 104-76-7
Test: BCF - Biokonzentrationsfaktor 25.35
Test: Kow - Verteilungskoeffizient 2.9
- 12.4. Mobilität im Boden
N.A.
- 12.5. Ergebnisse der PBT- und vPvB-Beurteilung
vPvB-Stoffe: Keine - PBT-Stoffe: Keine
- 12.6. 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.



ABSCHNITT 14: Angaben zum Transport



- 14.1. UN-Nummer
ADR-UN Number: 1950
IATA-UN Number: 1950
IMDG-UN Number: 1950
- 14.2. Ordnungsgemäße UN-Versandbezeichnung
ADR-Shipping Name: DRUCKGASPACKUNGEN
IATA-Shipping Name: DRUCKGASPACKUNGEN
IMDG-Shipping Name: DRUCKGASPACKUNGEN
- 14.3. Transportgefahrenklassen
ADR-Class: 2
ADR - Gefahrnummer: -
IATA-Class: 2
IATA-Label: 2.1
IMDG-Class: 2
IMDG-Klasse: 2 UN 1950
- 14.4. Verpackungsgruppe
ADR-Packing Group: -
IATA-Packing group: -
IMDG-Packing group: -
- 14.5. Umweltgefahren
ADR-Umweltbelastung: Nein
IMDG-Marine pollutant: Nein
- 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-EmS: F-D,
S-U
IMDG-Subsidiary hazards: See SP63
IMDG-Stowage and handling: SW1 SW22
IMDG-Segregation: SG69
- 14.7. Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code 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

Sicherheitsdatenblatt

SVITOL SPRAY ML 400



Verordnung (EU) 2015/830
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)

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:

Keine Beschränkung.

Flüchtige Organische Verbindung - FOV = 72.78 %
Flüchtige Organische Verbindung - FOV = 727.83 g/Kg
Flüchtige Organische Verbindung - FOV = 604.09 g/l
Wo möglich auf die folgenden Normen Bezug nehmen:
Richtlinie EU 2012/18 (Seveso III)
Verordnung (EG) Nr. 648/2004 (Detergenzien).
RL 2004/42/EG (FOV Richtlinie)

Anordnungen zu der Richtlinie EU 2012/18 (Seveso III):
Seveso III Kategorie gemäß dem Anhang 1, Teil 1
Das Produkt gehört zur Kategorie: P3b

15.2. Stoffsicherheitsbeurteilung

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

ABSCHNITT 16: Sonstige Angaben

Text der verwendeten Sätze im Absatz 3:

H226 Flüssigkeit und Dampf entzündbar.

H304 Kann bei Verschlucken und Eindringen in die Atemwege tödlich sein.

H336 Kann Schläfrigkeit und Benommenheit verursachen.

EUH066 Wiederholter Kontakt kann zu spröder oder rissiger Haut führen.

H281 Enthält tiefgekühltes Gas; kann Kälteverbrennungen oder -verletzungen verursachen.

H319 Verursacht schwere Augenreizung.

H315 Verursacht Hautreizungen.

H400 Sehr giftig für Wasserorganismen.

H410 Sehr giftig für Wasserorganismen mit langfristiger Wirkung.

H332 Gesundheitsschädlich bei Einatmen.

H335 Kann die Atemwege reizen.

Gefahrenklasse und Gefahrenkategorie	Code	Beschreibung
Aerosols 2	2.3/2	Aerosole, Kategorie 2
Press. Gas (Ref. Liq.)	2.5/RL	Gase unter Druck (Tiefgekühlt verflüssigtes Gas)

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Flam. Liq. 3	2.6/3	Entzündbare Flüssigkeiten, Kategorie 3
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
Aquatic Acute 1	4.1/A1	Akut gewässergefährdend, Kategorie 1
Aquatic Chronic 1	4.1/C1	Chronisch (langfristig) gewässergefährdend, Kategorie 1

Modifikation der Paragraphen seit der letzten Revision:

- ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen
- ABSCHNITT 11: Toxikologische Angaben
- ABSCHNITT 12: Umweltbezogene Angaben
- ABSCHNITT 16: Sonstige Angaben

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 2, H223+H229	auf der Basis von Prüfdaten
STOT SE 3, H336	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

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GHS:	Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien
IATA:	Internationale Flug-Transport-Vereinigung (IATA)
IATA-DGR:	Vorschriften über die Beförderung gefährlicher Güter der Internationalen Flug-Transport-Vereinigung (IATA)
ICAO:	Internationale Zivilluftfahrtorganisation (ICAO)
ICAO-TI:	Technische Anleitungen der Internationalen Zivilluftfahrtorganisation (ICAO)
IMDG:	Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffsverkehr (IMDG-Code)
INCI:	Internationale Nomenklatur für kosmetische Inhaltsstoffe (INCI)
KSt:	Explosions-Koeffizient
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, 08/07/2019

Substance identity	
Chemical name	Hydrocarbons C9-C11 cyclics-iso-alkanes <2% aromatics, declass. ex Notes "p"
CAS No.	64742-48-9
EINECS No.	919-857-5

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2. **ES 2** Use at industrial site
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6. **ES 6** Consumer use; Various products (PC1, PC24, PC31)
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1. ES 1 Formulation or re-packing; Solvent-based process

1.1 TITLE SECTION

Exposure Scenario name	Formulation and (re) packaging of substances and mixtures
Date - Version	28/06/2019 - 1.0
Life Cycle Stage	Formulation or re-packing
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3) - Formulation [mixing] of preparations and/or re-packaging (SU10)

Environment Contributing Scenario

CS1 Wet formulation ERC2

Worker Contributing Scenario

CS2 General exposures PROC5 - PROC1 - PROC2 - PROC3 - PROC4 - PROC8a - PROC8b - PROC9 - PROC14 - PROC15

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Wet formulation (ERC2)

Environmental release categories Formulation into mixture (ERC2)

Product (article) characteristics

Physical form of product:

Liquid

1.2. CS2: Worker Contributing Scenario: General exposures (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC14, PROC15)

Process Categories

Mixing or blending in batch processes - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Tableting, compression, extrusion, pelletisation, granulation - Use as laboratory reagent (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC14, PROC15)

Product (article) characteristics

Physical form of product:

Liquid

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Other conditions affecting worker exposure

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

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.

2. ES 2 Use at industrial site

2.1 TITLE SECTION

Exposure Scenario name	Lubricating agent
Date - Version	28/06/2019 - 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 Solvent-based process	ERC4 - ERC7
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Worker Contributing Scenario

CS2 General measures applicable to all activities	PROC1 - PROC2 - PROC3 - PROC4 - PROC7 - PROC8a - PROC8b - PROC9 - PROC10 - PROC13 - PROC17 - PROC18
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2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4, ERC7)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of functional fluid at industrial site (ERC4, ERC7)
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2.2. CS2: Worker Contributing Scenario: General measures applicable to all activities (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Industrial spraying - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General greasing/lubrication at high kinetic energy conditions (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)
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Product (article) characteristics

Physical form of product:

Liquid

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

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

Personal protection

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

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

2.3 Exposure estimation and reference to its source

N/A

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

Guidance to check compliance with the exposure scenario:

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

3. ES 3 Use at industrial site

3.1 TITLE SECTION

Exposure Scenario name	Lubricants - Industrial use
Date - Version	28/06/2019 - 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 Solvent-based process	ERC4 - ERC7
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Worker Contributing Scenario

CS2 Lubricants	PROC1 - PROC2 - PROC3 - PROC4 - PROC7 - PROC8a - PROC8b - PROC9 - PROC10 - PROC13 - PROC17 - PROC18
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3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4, ERC7)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of functional fluid at industrial site (ERC4, ERC7)
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Product (article) characteristics

Physical form of product:

Liquid

3.2. CS2: Worker Contributing Scenario: Lubricants (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Industrial spraying - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General greasing/lubrication at high kinetic energy conditions (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

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

Personal protection

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

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

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 Widespread use by professional workers

4.1 TITLE SECTION

Exposure Scenario name	Lubricants - Industrial use
Date - Version	28/06/2019 - 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 Solvent-based process	ERC9a - ERC9b
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Worker Contributing Scenario

CS2 Lubricants	PROC20 - PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC9 - PROC10 - PROC11 - PROC13 - PROC17 - PROC18
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4.2 Conditions of use affecting exposure

4.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
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4.2. CS2: Worker Contributing Scenario: Lubricants (PROC20, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18)

Process Categories	Use of functional fluids in small devices - 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 non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Non industrial spraying - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General greasing/lubrication at high kinetic energy conditions (PROC20, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

4.3 Exposure estimation and reference to its source

N/A

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	Lubricants (high power)
Date - Version	28/06/2019 - 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 Solvent-based process	ERC8a - ERC8d
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Worker Contributing Scenario

CS2 Lubricants	PROC20 - PROC1 - PROC2 - PROC3 - PROC4 - PROC8a - PROC8b - PROC9 - PROC10 - PROC11 - PROC13 - PROC17 - PROC18
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5.2 Conditions of use affecting exposure

5.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a, ERC8d)

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

Physical form of product:

Liquid

5.2. CS2: Worker Contributing Scenario: Lubricants (PROC20, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18)

Process Categories	Use of functional fluids in small devices - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Non industrial spraying - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General greasing/lubrication at high kinetic energy conditions (PROC20, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

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

Personal protection

Wear suitable gloves tested to EN374.

5.3 Exposure estimation and reference to its source

N/A

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 (PC1, PC24, PC31)

6.1 TITLE SECTION

Exposure Scenario name	Lubricants (low release)
Date - Version	28/06/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adhesives, sealants (PC1) - Lubricants, greases, release products (PC24) - Polishes and wax blends (PC31)

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a - ERC9b
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Consumer Contributing Scenario

CS2 Lubricants

6.2 Conditions of use affecting exposure

6.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

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

Physical form of product:

Liquid, vapour pressure < 0,5 kPa at STP

6.2. CS2: Consumer Contributing Scenario: Lubricants

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Frequency:

Covers exposure up to 1 events per day

Other conditions affecting consumers exposure

Temperature: Covers use at ambient temperatures.

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.

7. ES 7 Consumer use; Various products (PC1, PC24, PC31)

7.1 TITLE SECTION

Exposure Scenario name	Lubricants (low release)
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adhesives, sealants (PC1) - Lubricants, greases, release products (PC24) - Polishes and wax blends (PC31)

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a - ERC9b
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Consumer Contributing Scenario

CS2 Lubricants	PC24
CS3 Lubricants	PC1
CS4 Lubricants	PC31 - PC23_1, PC31_1 - PC23_2, PC31_2

7.2 Conditions of use affecting exposure

7.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
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7.2. CS2: Consumer Contributing Scenario: Lubricants (PC24)

Product Categories	Lubricants, greases, release products (PC24)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure < 0,5 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

Frequency:

Covers exposure up to 1 uses per day

Frequency:

Covers exposure up to 4 days per year

Other conditions affecting consumers exposure

Indoor use

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

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

7.2. CS3: Consumer Contributing Scenario: Lubricants (PC1)

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

Physical form of product:

Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:

Covers concentrations up to 30 %

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

Covers use up to 1 uses per day

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 20 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation.**7.2. CS4: Consumer Contributing Scenario: Lubricants (PC31)****Product Categories**

Polishes and wax blends (PC31)

Product (Sub-)Categories

Polishes, wax/cream (floor, furniture, shoes) - Polishes, spray (furniture, shoes) (PC23_1, PC31_1, PC23_2, PC31_2)

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

Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:

Covers concentrations up to 50 %

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

Covers exposure up to 1 uses per day

Frequency:

Covers exposure up to 29 days per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 20 m³**7.3 Exposure estimation and reference to its source**

N/A

7.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES**Guidance to check compliance with the exposure scenario:**

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

8. ES 8 Consumer use; Adhesives, sealants (PC1)

8.1 TITLE SECTION

Exposure Scenario name	Lubricants (high release)
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adhesives, sealants (PC1)

Environment Contributing Scenario

CS1 Waste management	ERC8a
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Consumer Contributing Scenario

CS2 Lubricants	PC1
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8.2 Conditions of use affecting exposure

8.2. CS1: Environment Contributing Scenario: Waste management (ERC8a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)
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8.2. CS2: Consumer Contributing Scenario: Lubricants (PC1)

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

Physical form of product:

Liquid

8.3 Exposure estimation and reference to its source

N/A

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

Guidance to check compliance with the exposure scenario:

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

9. ES 9 Consumer use; Various products (PC39, PC28)

9.1 TITLE SECTION

Exposure Scenario name	Cosumer other uses
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Cosmetics, personal care products (PC39) - Perfumes, fragrances (PC28)

Environment Contributing Scenario

CS1 Processing of organic liquids	ERC8a - ERC8d
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Consumer Contributing Scenario

CS2 Consumer	PC39 - PC28
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9.2 Conditions of use affecting exposure

9.2. CS1: Environment Contributing Scenario: Processing of organic liquids (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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9.2. CS2: Consumer Contributing Scenario: Consumer (PC39, PC28)

Product Categories	Cosmetics, personal care products - Perfumes, fragrances (PC39, PC28)
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Product (article) characteristics

Physical form of product:

Liquid

9.3 Exposure estimation and reference to its source

N/A

9.4 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, 08/07/2019

Substance identity	
Chemical name	Benzenesulfonic acid , mono-C16-24-alkyl derivs, calcium salts
CAS No.	70024-69-0
EINECS No.	274-263-7

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9. **ES 9** Consumer use; Lubricants, greases, release products (PC24)

1. ES 1 Use at industrial site

1.1 TITLE SECTION

Exposure Scenario name	Industrial general use of lubricants and greases in vehicles and machinery
Date - Version	08/07/2019 - 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 Solvent-based process	ERC4 - ERC7
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Worker Contributing Scenario

CS2 Industrial	PROC1
CS3 Industrial	PROC2
CS4 Industrial	PROC8b
CS5 Industrial	PROC9

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4, ERC7)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of functional fluid at industrial site (ERC4, ERC7)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-07 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Amounts used:

Annual site tonnage 10000 t(tonnes)/year

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %
Air filtration - particle removal	Air - minimum efficiency of: > 70 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

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)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

Technical and organisational conditions and measures

Technical and organisational measures

Handle the product in a closed system

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

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)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

Technical and organisational conditions and measures

Technical and organisational measures

Handle the product in a closed system

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

1.2. CS4: 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:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

Technical and organisational conditions and measures

Technical and organisational measures

Handle the product in a closed system

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

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained. Isolated drainage to prevent discharge to soil Clear spills immediately.

1.2. CS5: 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:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

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)
dermal, systemic, long-term	N/A	N/A	< 0.01

inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	< 0.01

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194
dermal, systemic, long-term	N/A	N/A	0.412

1.3. CS4: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

1.3. CS5: Worker Contributing Scenario: Industrial (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.412
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

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 Use at industrial site

2.1 TITLE SECTION

Exposure Scenario name	Application of lubricants for machining parts or equipment by immersion, surface deposition by brushing or by spraying
Date - Version	08/07/2019 - 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 Solvent-based process	ERC4
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Worker Contributing Scenario

CS2 Storage	PROC2
CS3 Spraying	PROC7
CS4 Material transfers	PROC8b
CS5 Material transfers	PROC9
CS6 Roller, spreader, flow application	PROC10
CS7 Dipping, immersion and pouring	PROC13

2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Amounts used:

Annual site tonnage 10 t(tonnes)/year

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %
Air filtration - particle removal	Air - minimum efficiency of: > 70 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

2.2. CS2: Worker Contributing Scenario: Storage (PROC2)

Process Categories

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

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

2.2. CS3: Worker Contributing Scenario: Spraying (PROC7)

Process Categories

Industrial spraying (PROC7)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Personal protection

Wear suitable gloves tested to EN374.

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

2.2. CS4: Worker Contributing Scenario: Material transfers (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:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Additional Good Practice Advice:

Clear transfer lines prior to de-coupling. Clear spills immediately.

2.2. CS5: Worker Contributing Scenario: Material transfers (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:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

2.2. CS6: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Process Categories

Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Personal protection

Wear suitable gloves tested to EN374.

2.2. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)

Process Categories

Treatment of articles by dipping and pouring (PROC13)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

2.3 Exposure estimation and reference to its source

2.3. CS2: Worker Contributing Scenario: Storage (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.412

inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

2.3. CS3: Worker Contributing Scenario: Spraying (PROC7)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.515
inhalative, systemic, long-term	N/A	N/A	0.078
dermal, local, long-term	N/A	N/A	0.039

2.3. CS4: Worker Contributing Scenario: Material transfers (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

2.3. CS5: Worker Contributing Scenario: Material transfers (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.412
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

2.3. CS6: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.078

2.3. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823

inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.388

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

Guidance to check compliance with the exposure scenario:

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

3. ES 3 Use at industrial site

3.1 TITLE SECTION

Exposure Scenario name	Application of lubricants for machining parts or equipment by immersion, surface deposition by brushing or by spraying
Date - Version	08/07/2019 - 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 Solvent-based process	ERC4
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Worker Contributing Scenario

CS2 Dipping, immersion and pouring - Bulk transfers	PROC8b - PROC13
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3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Amounts used:

Annual site tonnage 10000 t(tonnes)/year

Daily amount per site 34000 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

3.2. CS2: Worker Contributing Scenario: Dipping, immersion and pouring - Bulk transfers (PROC8b, PROC13)

Process Categories

Transfer of substance or mixture (charging and discharging) at dedicated facilities -
Treatment of articles by dipping and pouring (PROC8b, PROC13)

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

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

3.3 Exposure estimation and reference to its source**3.3. CS2: Worker Contributing Scenario: Dipping, immersion and pouring - Bulk transfers (PROC8b, PROC13)**

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194
dermal, local, long-term	N/A	N/A	0.388

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	Metal working fluids / rolling oils
Date - Version	08/07/2019 - 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 Solvent-based process	ERC8a
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Worker Contributing Scenario

CS2 Metal machining operations	PROC2
CS3 Bulk transfers - Equipment cleaning and maintenance - Disposal of wastes	PROC8b
CS4 Bulk transfers - Metal machining operations - General exposures	PROC17

4.2 Conditions of use affecting exposure

4.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Amounts used:

Annual site tonnage 1000 t(tonnes)/year

Daily amount per site 32500 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

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.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

4.2. CS2: Worker Contributing Scenario: Metal machining operations (PROC2)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

4.2. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance - Disposal of wastes (PROC8b)

Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

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

Additional Good Practice Advice:

Isolated drainage to prevent discharge to soil

4.2. CS4: Worker Contributing Scenario: Bulk transfers - Metal machining operations - General exposures (PROC17)

Process Categories	Lubrication at high energy conditions in metal working operations (PROC17)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Personal protection

Wear suitable gloves tested to EN374 and sleeves. For further specification, refer to section 8 of the SDS

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

4.3 Exposure estimation and reference to its source

4.3. CS2: Worker Contributing Scenario: Metal machining operations (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

4.3. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance - Disposal of wastes (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

4.3. CS4: Worker Contributing Scenario: Bulk transfers - Metal machining operations - General exposures (PROC17)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	0.017
dermal, local, long-term	N/A	N/A	0.078

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	Lubricating agent
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a - ERC9b
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Worker Contributing Scenario

CS2 Use in under containnet systems	PROC1
CS3 Drying and storage	PROC2
CS4 Equipment cleaning and maintenance	PROC8a
CS5 Disposal of wastes	PROC8b
CS6 Equipment cleaning and maintenance	PROC20
CS7 Machine	PROC24

5.2 Conditions of use affecting exposure

5.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Amounts used:

Daily amount per site 17000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

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

Waste treatment

Product residual disposal complies with applicable regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

5.2. CS2: Worker Contributing Scenario: Use in under containnet systems (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:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.2. CS3: Worker Contributing Scenario: Drying and storage (PROC2)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

Store substance within a closed system.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.2. CS4: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC8a)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

- Handle the product in a closed system
- Drain or remove substance from equipment prior to break-in or maintenance.
- Remove spills immediately
- Keep drains in watertight containers while awaiting dismantling or subsequent recycling

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.2. CS5: Worker Contributing Scenario: Disposal of wastes (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:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

- Remove spills immediately
- Handle the product in a closed system

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

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

Additional Good Practice Advice:

Retain drain downs in sealed storage pending disposal or for subsequent recycle. Clear spills immediately.

5.2. CS6: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC20)

Process Categories

Use of functional fluids in small devices (PROC20)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

- Remove spills immediately
- Handle the product in a closed system

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

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

Additional Good Practice Advice:

Retain drain downs in sealed storage pending disposal or for subsequent recycle. Clear spills immediately.

5.2. CS7: Worker Contributing Scenario: Machine (PROC24)

Process Categories	High (mechanical) energy work-up of substances bound in/on materials and/or articles (PROC24)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

Closed systems

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.3 Exposure estimation and reference to its source

5.3. CS2: Worker Contributing Scenario: Use in under containnet systems (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	< 0.01
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	< 0.01

5.3. CS3: Worker Contributing Scenario: Drying and storage (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

5.3. CS4: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01

dermal, local, long-term	N/A	N/A	0.194
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5.3. CS5: Worker Contributing Scenario: Disposal of wastes (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

5.3. CS6: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC20)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.103
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.048

5.3. CS7: Worker Contributing Scenario: Machine (PROC24)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.17
inhalative, systemic, long-term	N/A	N/A	0.34
dermal, local, long-term	N/A	N/A	0.019

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

Guidance to check compliance with the exposure scenario:

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

6. ES 6 Widespread use by professional workers

6.1 TITLE SECTION

Exposure Scenario name	Application of lubricants for machining parts or equipment by immersion, surface deposition by brushing or by spraying
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Solvent-based process	ERC8a - ERC8d
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Worker Contributing Scenario

CS2 Storage	PROC2
CS3 Bulk transfers - Equipment cleaning and maintenance	PROC8a
CS4 Disposal of wastes	PROC8b
CS5 Roller, spreader, flow application	PROC10
CS6 Hand held spraying	PROC11
CS7 Dipping, immersion and pouring	PROC13

6.2 Conditions of use affecting exposure

6.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a, ERC8d)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Amounts used:

Annual site tonnage 5000 t(tonnes)/year

Daily amount per site 17000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal

Air - minimum efficiency of: > 70 %

Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %
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Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

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

Additional Good Practice Advice:

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

6.2. CS2: Worker Contributing Scenario: Storage (PROC2)

Process Categories

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

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Store substance within a closed system.

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

6.2. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance (PROC8a)

Process Categories

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

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Use in closed process

Clear transfer lines prior to de-coupling.

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Additional Good Practice Advice:

Retain drain downs in sealed storage pending disposal or for subsequent recycle. Prevent leaks and prevent soil / water pollution caused by leaks.

6.2. CS4: Worker Contributing Scenario: Disposal of wastes (PROC8b)

Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Additional Good Practice Advice:

Prevent leaks and prevent soil / water pollution caused by leaks. Retain drain downs in sealed storage pending disposal or for subsequent recycle.

6.2. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Process Categories	Roller application or brushing (PROC10)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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 the product in a closed system
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Wear suitable gloves tested to EN374.

6.2. CS6: Worker Contributing Scenario: Hand held spraying (PROC11)

Process Categories	Non industrial spraying (PROC11)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

*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 the product in a closed system

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

6.2. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)**Process Categories**

Treatment of articles by dipping and pouring (PROC13)

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

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

*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 the product in a closed system

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

Ensure material transfers are under containment or extract ventilation.

6.3 Exposure estimation and reference to its source**6.3. CS2: Worker Contributing Scenario: Storage (PROC2)**

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

6.3. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

6.3. CS4: Worker Contributing Scenario: Disposal of wastes (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

6.3. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.078

6.3. CS6: Worker Contributing Scenario: Hand held spraying (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.644
inhalative, systemic, long-term	N/A	N/A	0.017
dermal, local, long-term	N/A	N/A	0.097

6.3. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.388

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

Guidance to check compliance with the exposure scenario:

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

7. ES 7 Widespread use by professional workers

7.1 TITLE SECTION

Exposure Scenario name	Metal working fluids / rolling oils
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Solvent-based process	ERC8a
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Worker Contributing Scenario

CS2 Equipment cleaning and maintenance	PROC2
CS3 Filling of equipment from drums or containers	PROC8b
CS4 Metal machining operations - Open systems - Material transfers - Disposal of wastes	PROC2

7.2 Conditions of use affecting exposure

7.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Amounts used:

Daily amount per site 17000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 20

7.2. CS2: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC2)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

7.2. CS3: Worker Contributing Scenario: Filling of equipment from drums or containers (PROC8b)

Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

7.2. CS4: Worker Contributing Scenario: Metal machining operations - Open systems - Material transfers - Disposal of wastes (PROC2)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Wear suitable gloves tested to EN374.

7.3 Exposure estimation and reference to its source

7.3. CS2: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

7.3. CS3: Worker Contributing Scenario: Filling of equipment from drums or containers (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

7.3. CS4: Worker Contributing Scenario: Metal machining operations - Open systems - Material transfers - Disposal of wastes (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	0.017
dermal, local, long-term	N/A	N/A	0.078

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

Guidance to check compliance with the exposure scenario:

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

8. ES 8 Consumer use; Lubricants, greases, release products (PC24)

8.1 TITLE SECTION

Exposure Scenario name	Use of lubricants and greases
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Product Categories	Lubricants, greases, release products (PC24)

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a
CS2 Solvent-based process	ERC9b

Consumer Contributing Scenario

CS3 Use in lubricants and greases	PC24
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8.2 Conditions of use affecting exposure

8.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a)

Environmental release categories	Widespread use of functional fluid (indoor) (ERC9a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

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

Amounts used:

Daily amount per site 4000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

8.2. CS2: Environment Contributing Scenario: Solvent-based process (ERC9b)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

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

Daily amount per site 0.005775 kg/day

Release type: Continuous release**Emission days:** 365 days per year**Other conditions affecting environmental exposure****Local marine water dilution factor:** 100**Local freshwater dilution factor:** 10**8.2. CS3: Consumer Contributing Scenario: Use in lubricants and greases (PC24)****Product Categories**

Lubricants, greases, release products (PC24)

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

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

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

For each use event, covers use amounts up to 1 kg

Duration:

Covers use up to 120 min/shift

Frequency:

Covers frequency up to: 1 applications per month

Other conditions affecting consumers exposure**Room size:** Covers use in room size of 25 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation. 0.6 Air changer per hour**8.3 Exposure estimation and reference to its source**

N/A

8.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES**Guidance to check compliance with the exposure scenario:**

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

9. ES 9 Consumer use; Lubricants, greases, release products (PC24)

9.1 TITLE SECTION

Exposure Scenario name	Use of lubricants and greases
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Product Categories	Lubricants, greases, release products (PC24)

Environment Contributing Scenario

CS1 Solvent-based process	ERC8a
CS2 Solvent-based process	ERC8d

Consumer Contributing Scenario

CS3 Use in lubricants and greases	PC24
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9.2 Conditions of use affecting exposure

9.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

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

Amounts used:

Daily amount per site 0.005775 kg/day

Release type: Continuous release

Emission days: 365 days per year

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

9.2. CS2: Environment Contributing Scenario: Solvent-based process (ERC8d)

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

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

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

Amount per use 50 g

Daily amount per site 0.002457 kg/day

Release type: Continuous release**Emission days:** 365 days per year***Other conditions affecting environmental exposure*****Local marine water dilution factor:** 100**Local freshwater dilution factor:** 10**9.2. CS3: Consumer Contributing Scenario: Use in lubricants and greases (PC24)****Product Categories**

Lubricants, greases, release products (PC24)

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

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

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

Amount per use 50 g

Duration:

Covers exposure up to 5 min/shift

Frequency:

Covers exposure up to 2 times a week

Other conditions affecting consumers exposure**Room size:** Covers use in room size of 25 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** 0.6 Air changer per hour**9.3 Exposure estimation and reference to its source**

N/A

9.4 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.