

Page 1/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022

Version number 15.0 (replaces version 14.0)

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Trade name: KEIM LIGNOSIL-BASE-DL
- · CAS Number:

64742-48-9

· EC number:

918-481-9

· Index number:

649-327-00-6

- · Registration number 01-2119457273-39-XXXX
- 1.2 Relevant identified uses of the substance or mixture and uses advised against

For this product, uses according to REACH have been identified. To provide a better readability, the uses are listed in the annex to this safety data sheet.

· Application of the substance / the mixture

Solvent

Diluent for KEIM LIGNOSIL-BASE

- · Uses advised against All other uses are not recommended.
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

KEIMFARBEN GMBH

Keimstraße 16 / 86420 Diedorf

Tel. +49 (0)821 4802-0

Fax +49 (0)821 4802-210

www.keim.com / info@keimfarben.de

· Further information obtainable from:

Product safety department Telefon: 49(0)821/4802-138 E-Mail: sdb.info@keimfarben.de

· 1.4 Emergency telephone number:

GBK GmbH Global Regulatory Compliance Emergency number: +49(0)6132/84463

### **SECTION 2: Hazards identification**

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Revision: 13.12.2022



Page 2/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

· Hazard pictograms



· Signal word Danger

· Hazard-determining components of labelling:

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

**Hazard statements** 

H304 May be fatal if swallowed and enters airways.

**Precautionary statements** 

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P280 Wear protective gloves / eye protection / face protection.

P301 IF SWALLOWED:

P331 Do NOT induce vomiting.

Get immediate medical advice/attention. P315

P332+P313 If skin irritation occurs: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: Water haze, CO2, alcohol resistant foam.

P405 Store locked up.

P403+P235 Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with regional/national regulations. P501

**Additional information:** 

EUH066 Repeated exposure may cause skin dryness or cracking.

Restricted to professional users.

2.3 Other hazards

Physical / Chemical Hazards:

Material can accumulate static charges which may cause an ignition. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Combustible.

Health Hazards:

Repeated exposure may cause skin dryness or cracking. Mildly irritating to skin. May be irritating to the eyes, nose, throat, and lungs.

· Results of PBT and vPvB assessment

· PBT: Not applicable · vPvB: Not applicable

# **SECTION 3: Composition/information on ingredients**

· 3.1 Substances

· CAS No. Description

64742-48-9 Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

· Identification number(s)

· EC number: 918-481-9

· Index number: 649-327-00-6

(Contd. on page 3)

(Contd. of page 1)



Page 3/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

(Contd. of page 2)

· Description: Dearomatised Hydrocarbons

## **SECTION 4: First aid measures**

4.1 Description of first aid measures

· General information:

When seeing the doctor we suggest to present this safety data sheet.

Immediately remove any clothing soiled by the product.

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Do not use solvents or thinners.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Rinse mouth and throat well with water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

Later observation for pneumonia and pulmonary oedema.

### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Water haze, extinguishing powder, alcohol resistant foam, CO2, sand.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

carbon oxide (COx)

Flammable gases/vapours

Harmful and flammable vapour is released during pyrolysis.

- 5.3 Advice for firefighters
- · Special protective equipment: Wear self-contained respiratory protective device.
- Additional information

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

In case of fire do not breathe smoke, fumes and vapours.

DEN



Page 4/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

(Contd. of page 3)

### **SECTION 6: Accidental release measures**

#### · 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources.

Do not inhale fumes.

Avoid contact with skin and eyes.

Respect the protection rules (see section 7 and 8).

Wear protective equipment. Keep unprotected people away.

#### 6.2 Environmental precautions:

Do not allow product to reach soil, sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Follow local governmental rules and regulations.

#### · 6.3 Methods and material for containment and cleaning up:

Organic solvent

Absorb with non-combustible liquid-binding material (sand, earth, diatomite, vermiculite).

Fill in labelled, lockable containers.

Dispose of the material collected according to regulations.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Clear contaminated areas thoroughly.

#### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

# **SECTION 7: Handling and storage**

#### · 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Open and handle receptacle with care.

Keep away from heat and direct sunlight.

Do not inhale aerosols.

Ensure good ventilation/exhaustion at the workplace.

See item 8 (8.2) for information about suitable protective equipment and technical precautions. Respect the protection rules.

#### Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

#### · 7.2 Conditions for safe storage, including any incompatibilities

- Storage:
- · Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Drip pan to be provided.

· Information about storage in one common storage facility: Store away from oxidising agents.

(Contd. on page 5)



Page 5/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

(Contd. of page 4)

#### · Further information about storage conditions:

Keep container tightly sealed.

Protect from heat and direct sunlight.

- · Storage class: 10
- · GISCode BSL50 Beschichtungsstoffe, stark lösemittelbasiert, aromatenhaltig, gekennzeichnet
- · 7.3 Specific end use(s) No further relevant information available.

# **SECTION 8: Exposure controls/personal protection**

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

Vapour. RCP - TWA 1200 mg/m3 184 ppm Total Hydrocarbons

#### 64742-48-9 Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

MAK (Germany) Long-term value: 300 mg/m³, 50 ppm

vgl. Abschn. Xc

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter: A

- · Hand protection Protective gloves
- Material of gloves

suitable material e.g.:

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.5$  mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

Value for the permeation: level  $\geq$  6 (480 min)

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection Tightly sealed goggles

(Contd. on page 6)



Page 6/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

(Contd. of page 5)

· Body protection:

Protective work clothing

Solvent resistant protective clothing

· Environmental exposure controls

See Section 12 and 6.2

No further relevant information available.

# **SECTION 9: Physical and chemical properties**

· 9.1 Information on basic physical and chemical properties

· General Information

Physical stateColour:Odour:Mild

· Odour threshold: Not determined

· Melting point/freezing point: <-25 °C

· Boiling point or initial boiling point and

boiling range 184-214 °C (ASTM D86)

· Flammability Not applicable

· Lower and upper explosion limit

• Lower: 0.6 Vol %
• Upper: 6 Vol %

Flash point:
 Decomposition temperature:
 pH
 65 °C (ASTM D93)
 Not determined
 Not determined

· Viscosity:

• Kinematic viscosity at 20 °C 1.7\* mm²/s (ASTM D7042)

· **Dynamic:** Not determined.

· Solubility

· water: Negligible

Not miscible or difficult to mix.

Partition coefficient n-octanol/water (log

value) Not determined. • Vapour pressure at 20 °C: 0.675 hPa

Density and/or relative density

Density at 20 °C: 0.77-0.82\* g/cm³ (ISO 12185)

Relative density at 20 °C 0.79 (H2O)

• 9.2 Other information \* The values are for freshly produced material

and may change with the time.

· Appearance:

· Form: Fluid

· Important information on protection of health

and environment, and on safety.

· Auto-ignition temperature: Not determined

(Contd. on page 7)



Page 7/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

	(Contd. of page
Explosive properties:	Product is not explosive. However, the formation of explosive air/vapour mixtures is possible.
· VOC (EC)	100 %
· Change in condition	100 70
· Evaporation rate	Not determined.
· Information with regard to physical haz	ard
classes	
· Explosives	Void
Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit	
flammable gases in contact with water	Void
· Oxidising liquids	Void
Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
Desensitised explosives	Void

# **SECTION 10: Stability and reactivity**

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability Stable under normal conditions of storage and use.
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

Can react violently with oxygen rich (oxidising) material. Danger of explosion.

- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: oxidizing agents
- · 10.6 Hazardous decomposition products:

In case of fire, the following can be released:

Carbon oxides (COx)

Flammable gases/vapours

No hazardous decomposition products if stored and handled as prescribed.

DEN



Page 8/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

(Contd. of page 7)

# **SECTION 11: Toxicological information**

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50	· LD/LC50 values relevant for classification:		
64742-48-	64742-48-9 Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics		
Oral	LD50	>5,000 mg/kg (rat) (OECD 401)	
Dermal	LD50	>5,000 mg/kg (rabbit) (OECD 402)	
Inhalative	LC50/4 h	>5 mg/l (rat) (OECD 403)	

- · Skin corrosion/irritation not primarily irritating on the skin
- · Serious eye damage/irritation In case of longer exposure, irritating effect is possible.
- · during inhalation: Vapours may cause drowsiness and dizziness.
- · during swallowing:

harmful

May cause lung damage if swallowed.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard

May be fatal if swallowed and enters airways.

· Other information (about experimental toxicology):

Experimental analysis are not available.

The product was not tested. The statements on toxicology have been derived from the properties of the individual components.

- Subacute to chronic toxicity:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) Not applicable
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

Substance is not listed.

# **SECTION 12: Ecological information**

- · 12.1 Toxicity
- · Aquatic toxicity:

64742-48-9 Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
---

LC0 /96h | 1,000 mg/l (fish) EC 0/48h | 1,000 mg/l (daphnia) EC 0/72h | 1,000 mg/l (algae)

· 12.2 Persistence and degradability

Easily biodegradable

(Contd. on page 9)



Page 9/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

(Contd. of page 8)

80% / 28d

- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable
- · vPvB: Not applicable
- 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- 12.7 Other adverse effects
- · Additional ecological information:
- According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 2006/11/EC:

According to our current data base the product does not consist of any heavy metals or substances of EU-directives 76/464/EWG.

General notes:

Do not allow product to reach ground water, water course or sewage system.

At present there are no ecotoxicological assessments.

The statements on ecotoxicology have been derived from the properties of the individual components.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

## **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- Recommendation

Must not be disposed with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

· European waste catalogue

14 06 03\* other solvents and solvent mixtures

- Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary with cleansing agents.

# **SECTION 14: Transport information**

•		
· 14.1 UN number or ID number · ADR, IMDG, IATA	Void	
· 14.2 UN proper shipping name · ADR, IMDG, IATA	Void	
· 14.3 Transport hazard class(es)		
· ADR, IMDG, IATA · Class	Void	

(Contd. on page 10)



Page 10/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

	(Contd. of page
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable
· 14.7 Maritime transport in bulk accord	ing to
IMO instruments	Not classified according to Annex II
· UN "Model Regulation":	Void

# **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Labelling according to Regulation (EC) No 1272/2008

For information on labelling please refer to section 2 of this document.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)

Substance is not listed.

 DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

Substance is not listed.

- · REGULATION (EU) 2019/1148
- Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

Substance is not listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed.

Regulation (EC) No 273/2004 on drug precursors

Substance is not listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Substance is not listed.

- National regulations:
- · Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Other regulations, limitations and prohibitive regulations
- · Please note:

TRGS 200 (Germany)

TRGS 500 (Germany)

(Contd. on page 11)



Page 11/11

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2022 Version number 15.0 (replaces version 14.0) Revision: 13.12.2022

Trade name: KEIM LIGNOSIL-BASE-DL

(Contd. of page 10)

TRGS 510 (Germany) TRGS 900 (Germany)

- Substances of very high concern (SVHC) according to REACH, Article 57 Not applicable
- · Product-Code/Giscode: BSL50
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

## **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: KEIMFARBEN Germany, Product safety department
- · Version number of previous version: 14.0
- Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany) VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

AGW: Arbeitsplatzgrenzwert (Germany)

EC10: Effective concentration at 10% mortality rate.

EC50: Half maximal effective concentration.

LC10: Lethal concentration at 10% mortality rate.

NOEC: No observed effect concentration.

REACH: Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) No.1907/2006)

Asp. Tox. 1: Aspiration hazard - Category 1

\* Data compared to the previous version altered.

This safety	ˈdata si	heet contair	ns an annex !	

DEN



# Annex to the Safety Data Sheet According to Article 31(7) of Regulation 1907/2006/EC (REACH)

#### General information:

Please send requests for additional uses or for extension of exposure scenarios to the following e-mail address: sdb.info@keimfarben.de

All identified uses have been summarized tabularly. The uses are linked to the subsequently described exposure scenarios by the sequential exposure scenario number given in the table.

Manufacture of substance

PROC1, PROC15, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU10, SU3, SU8, SU9

Distribution of substance

PROC1, PROC15, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU3, SU8, SU9

Formulation and (re)packing of substances and mixtures

PROC1, PROC14, PROC15, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, SU10, SU3

Use in Coatings - Industrial

PROC1, PROC10, PROC13, PROC15, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, SU3

Use in Cleaning Agents - Industrial

PROC1, PROC10, PROC13, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8bSU3

Use in oil field drilling and production operations - Industrial

PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU3

Lubricants - Industrial

PROC1, PROC10, PROC13, PROC17, PROC18, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, SU3

Metal working fluids / rolling oils - Industrial

PROC1, PROC10, PROC13, PROC17, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, SU3

Use as binders and release agents - Industrial

PROC1, PROC10, PROC13, PROC14, PROC2, PROC3, PROC4, PROC6, PROC7, PROC8a, PROC8b, SU3

Use as a fuel - Industrial

PROC1, PROC16, PROC2, PROC3, PROC8a, PROC8b, SU3

Functional Fluids - Industrial

PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU3

Use in laboratories - Industrial

PROC15, SU3

Polymer processing - Industrial

PROC1, PROC13, PROC14, PROC2, PROC21, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9, SU10, SU3

Water treatment chemicals - Industrial

PROC1, PROC13, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU3

Mining chemicals

PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, SU3

Use in Coatings - Professional

PROC1, PROC10, PROC11, PROC13, PROC15, PROC19, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, SU22

Use in Cleaning Agents - Professional

PROC1, PROC10, PROC11, PROC13, PROC19, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU22

Use in oil field drilling and production operations - Professional

PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU22



Lubricants - Professional (Low Release)

PROC1, PROC10, PROC11, PROC13, PROC17, PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU22

Lubricants - Professional (High Release)

PROC1, PROC10, PROC11, PROC13, PROC17, PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU22

Metal working fluids / rolling oils - Professional

PROC1, PROC10, PROC11, PROC13, PROC17, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, SU22

Use as binders and release agents - Professional

PROC1, PROC10, PROC11, PROC14, PROC2, PROC3, PROC4, PROC6, PROC8a, PROC8b, SU22

Use as a fuel - Professional

PROC1, PROC16, PROC2, PROC3, PROC8a, PROC8b, SU22

Functional Fluids - Professional

PROC1, PROC2, PROC20, PROC3, PROC8a, PROC9, SU22

De-icing and anti-icing applications - Professional

PROC1, PROC11, PROC2, PROC8a, PROC8b, SU22

Road and construction applications

PROC1, PROC10, PROC11, PROC13, PROC2, PROC8a, PROC8b, PROC9, SU22

Use in laboratories - Professional

PROC15, SU22

Explosives manufacture & use

PROC1, PROC3, PROC5, PROC8a, PROC8b, SU22

Polymer processing - Professional

PROC1, PROC14, PROC2, PROC21, PROC6, PROC8a, PROC8b, SU22

Water treatment chemicals - Professional

PROC1, PROC13, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU22

Use in Coatings - Consumer

PC01,PC04,PC08,PC09A,PC09B,PC09C,PC15,PC18,PC23,PC24,PC31,PC34, SU21

Use in Cleaning Agents - Consumer

PC03,PC04,PC08,PC09A,PC09B,PC09C,PC24,PC35,PC38, SU21

Lubricants - Consumer (Low Release)

PC01,PC24,PC31, SU21

Lubricants - Consumer (High Release)

PC01,PC24,PC31, SU21

Use as a fuel - Consumer

PC13, SU21

Functional Fluids - Consumer

PC16,PC17, SU21

Uses in cosmetics/personal care products, perfumes and fragrances - Consumer

PC28,PC39, SU21



Section 1 Exposure Scenario Title	
Title:	
Manufacture of substance	
Use Descriptor	
Sector(s) of Use	SU10, SU3, SU8, SU9
Process Categories	PROC1, PROC15, PROC2, PROC3, PROC4, PROC8a, PROC8b
Environmental Release Categories	ERC1, ERC4
Specific Environmental Release Category	
Processes tasks activities covered	<u> </u>

Manufacture of the substance or use as an intermediate, process chemical or extracting agent. Includes recycling/ recovery, material transfers, storage, maintenance and loading (ncluding marine vessel/barge, road/rail car and bulk container).

#### Operational conditions and risk management measures

### Section 2.1 Control of worker exposure

#### **Product Characteristic**

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

# Contributing Scenarios/

#### Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

# **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a nonquantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

#### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

### Organisation measures to prevent/limit release from site



Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Distribution of substance	
Use Descriptor	
Sector(s) of Use	SU3, SU8, SU9
Process Categories	PROC1, PROC15, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9
Environmental Release Categories	ERC1, ERC2, ERC3, ERC4, ERC5, ERC6A, ERC6B, ERC6C, ERC6D, ERC7
Specific Environmental Release Category	
Processes, tasks, activities covered	· · · · · · · · · · · · · · · · · · ·

Loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading, distribution and associated laboratory activities.

# Section 2 Operational conditions and risk management measures

# Section 2.1 Control of worker exposure

#### Product Characteristic

Liquid

#### Duration, frequency and amount

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

Covers percentage substance in the product up to 100 %[G13]

# Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## **Contributing Scenarios/**

# **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

# General measures (Aspiration Hazard)

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

# Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

# Other given operational conditions affecting environmental exposure

Not applicable

# Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

# Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

### Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Formulation and (re)packing of substances and mi	ixtures
Use Descriptor	
Sector(s) of Use	SU10, SU3
Process Categories	PROC1, PROC14, PROC15, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9
Environmental Release Categories	ERC2
Specific Environmental Release Category	
Processes, tasks, activities covered	

Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

### Section 2 Operational conditions and risk management measures

# Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liauid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## **Contributing Scenarios/**

# **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

### Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

# Other given operational conditions affecting environmental exposure

Not applicable

# Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

# Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

### Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in Coatings - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC10, PROC13, PROC15, PROC2, PROC3,
	PROC4, PROC5, PROC7, PROC8a, PROC8b
Environmental Release Categories	ERC4
Specific Environmental Release Category	
Processes tasks activities covered	·

#### Processes, tasks, activities covered

Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.

### Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liauid

#### Duration, frequency and amount

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## Contributing Scenarios/

# Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a nonquantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

# Other given operational conditions affecting environmental exposure

Not applicable

# Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in Cleaning Agents - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC10, PROC13, PROC2, PROC3, PROC4,
-	PROC7, PROC8a, PROC8b
Environmental Release Categories	ERC4
Specific Environmental Release Category	
Processes tacks activities covered	·

#### Processes, tasks, activities covered

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

### Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### Product Characteristic

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## **Contributing Scenarios/**

# **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

# Other given operational conditions affecting environmental exposure

Not applicable

# Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

# Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

### Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in oil field drilling and production operations -	Industrial
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b
Environmental Release Categories	ERC4
Specific Environmental Release Category	
<b>5</b>	·

#### Processes, tasks, activities covered

Oil field well drilling and production operations (including drilling muds and well cleaning) including material transfers, on-site formulation, well head operations, shaker room activities and related maintenance.

# Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### Product Characteristic

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

# Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

#### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

# **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

#### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Lubricants - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC10, PROC13, PROC17, PROC18, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9
Environmental Release Categories	ERC4, ERC7
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers the use of formulated lubricants in closed and open machinery/engines and similar articles, reworking on rejections.	t articles, equipment maintenance and disposal of wastes.
Section 2 Operational conditions and risk management	ent measures
Section 2.1 Control of worker exposure	
Product Characteristic	
Liquid	
Duration, frequency and amount	
Covers daily exposures up to 8 hours (unless stated differently)[G2]	
Covers percentage substance in the product up to 100 %[	
Other given operational conditions affecting workers	
Assumes a good basic standard of occupational hygiene is	s implemented [G1]
Contributing Scenarios/ Specific Risk Management Measures and Operating Conly required controls to demonstrate safe use listed)	onditions
	erties (i.e. viscosity) that can occur during ingestion and also red. Risks from the physicochemical hazards of substances sures. For substances classified as H304, the following in hazard.
Product characteristics	
Not applicable	

### **Duration, frequency and amount**

Not applicable

# Environmental factors not influenced by risk management

Not applicable

# Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Metal working fluids / rolling oils - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC10, PROC13, PROC17, PROC2, PROC3,
	PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9
Environmental Release Categories	ERC4
Specific Environmental Release Category	
Processe tacks activities covered	·

#### Processes, tasks, activities covered

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

### Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## **Contributing Scenarios/**

#### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

### Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

## Other given operational conditions affecting environmental exposure

Not applicable

# Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

# Organisation measures to prevent/limit release from site

Not applicable

Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

### Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use as binders and release agents - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC10, PROC13, PROC14, PROC2, PROC3,
-	PROC4, PROC6, PROC7, PROC8a, PROC8b
Environmental Release Categories	ERC4
Specific Environmental Release Category	
Processe tacks activities covered	<u>.</u>

#### Processes, tasks, activities covered

Covers the use as binders and release agents including material transfers, mixing, application (including spraying and brushing) and handling of waste.

# Section 2 Operational conditions and risk management measures

## Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

# Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### Contributing Scenarios/

## Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

# **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use as a fuel - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC16, PROC2, PROC3, PROC8a, PROC8b
Environmental Release Categories	ERC7
Specific Environmental Release Category	
	•

#### Processes, tasks, activities covered

Covers the use as a fuel (or fuel additive), and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

# Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### Product Characteristic

Liauid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

# Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

#### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

# **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

# Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

# Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment



**Section 1 Exposure Scenario Title** 

Coolien i Expectare Cooliane Tille	
Title:	
Functional Fluids - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9
Environmental Release Categories	ERC7
Specific Environmental Release Category	
Processes, tasks, activities covered	
Use as functional fluids e.g. cable oils, transfer oils, coolar equipment including maintenance and related material tra	insfers.
Section 2 Operational conditions and risk managem	ent measures
Section 2.1 Control of worker exposure	
Product Characteristic	
Liquid	
Duration, frequency and amount	4 100
Covers daily exposures up to 8 hours (unless stated differ	
Covers percentage substance in the product up to 100 %	
Other given operational conditions affecting workers	•
Assumes a good basic standard of occupational hygiene i	s implemented [G1]
Contributing Scenarios/ Specific Risk Management Measures and Operating C (only required controls to demonstrate safe use listed)	conditions
if it is vomited following ingestion. A DNEL cannot be derived an be controlled by implementing risk management measures need to be implemented to control the aspiration of the properties of the control of the contro	erties (i.e. viscosity) that can occur during ingestion and also ved. Risks from the physicochemical hazards of substances sures. For substances classified as H304, the following on hazard.
Section 2.2 Control of environmental exposure	
Product characteristics	
Not applicable	
Duration, frequency and amount	
Not applicable	
Environmental factors not influenced by risk manager	nent

# Technical conditions and measures at process level (source) to prevent release

Not applicable

Not applicable

Not applicable

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

Organisation measures to prevent/limit release from site

Not applicable

Conditions and measures related to municipal sewage treatment plant

Other given operational conditions affecting environmental exposure



Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in laboratories - Industrial	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC15
Environmental Release Categories	ERC4
Specific Environmental Release Category	
Processes, tasks, activities covered	

Use of the substance within laboratory settings, including material transfers and equipment cleaning.

#### Section 2 Operational conditions and risk management measures

### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

# Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

# **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

## **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

#### Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

# Duration, frequency and amount

Not applicable

### Environmental factors not influenced by risk management

Not applicable

# Other given operational conditions affecting environmental exposure

Not applicable

# Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal



Conditions and measures related to external recovery of waste

Not applicable

## Section 3 Exposure Estimation

## 3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Polymer processing - Industrial	
Use Descriptor	
Sector(s) of Use	SU10, SU3
Process Categories	PROC1, PROC13, PROC14, PROC2, PROC21, PROC3, PROC4, PROC5, PROC6, PROC8a, PROC8b, PROC9
Environmental Release Categories	ERC4
Specific Environmental Release Category	
Processes, tasks, activities covered	<u> </u>

Processing of formulated polymers including material transfers, additives handling (e.g. pigments, stabilisers, fillers, plasticisers, etc.), moulding, curing and forming activities, material re-works, storage and associated maintenance.

## Section 2 Operational conditions and risk management measures

## Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

## Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

### **Contributing Scenarios/**

## Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

## Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

### Technical conditions and measures at process level (source) to prevent release

Not applicable

### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

## Conditions and measures related to municipal sewage treatment plant



Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Water treatment chemicals - Industrial	
Use Descriptor	
Sector(s) of Use	ISU3
( )	
Process Categories	PROC1, PROC13, PROC2, PROC3, PROC4, PROC8a, PROC8b
Environmental Release Categories	ERC3, ERC4
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers the use of the substance for the treatment of water	
Section 2 Operational conditions and risk management	ent measures
Section 2.1 Control of worker exposure	
Product Characteristic	
Liquid	
Duration, frequency and amount	
Covers daily exposures up to 8 hours (unless stated different	
Covers percentage substance in the product up to 100 %[	
Other given operational conditions affecting workers	
Assumes a good basic standard of occupational hygiene is	s implemented [G1]
Contributing Scenarios/	
Specific Risk Management Measures and Operating C	onditions
(only required controls to demonstrate safe use listed)	
	erties (i.e. viscosity) that can occur during ingestion and also ved. Risks from the physicochemical hazards of substances sures. For substances classified as H304, the following n hazard.
Section 2.2 Control of environmental exposure	
Product characteristics	
Not applicable	
Duration, frequency and amount	
Not applicable	
Environmental factors not influenced by risk manager	nent
Not applicable	
Other given operational conditions affecting environmental exposure	
Not applicable	
Technical conditions and measures at process level (s	source) to prevent release
Not applicable	· ·
Technical onsite conditions and measures to reduce of	or limit discharges, air emissions and releases to soil
Not applicable	<b>*</b> *
Organisation measures to prevent/limit release from s	ite
Not applicable	
Conditions and measures related to municipal sewage	treatment plant
Not applicable	

Conditions and measures related to external treatment of waste for disposal



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Mining chemicals	
Use Descriptor	
Sector(s) of Use	SU3
Process Categories	PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a,
	PROC8b, PROC9
Environmental Release Categories	ERC4
Specific Environmental Release Category	
Processes tasks activities covered	·

#### Processes, tasks, activities covered

Covers the use of the substance in extraction processes at mining operations, including material transfers, winning and separation activities, and substance recovery and disposal.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

## Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

### **Contributing Scenarios/**

## Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

## Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

## Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

## Conditions and measures related to municipal sewage treatment plant



Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in Coatings - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC10, PROC11, PROC13, PROC15,
	PROC19, PROC2, PROC3, PROC4, PROC5, PROC8a,
	PROC8b
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Processes, tasks, activities covered	

Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation) and equipment cleaning, maintenance and associated laboratory activities.

## Section 2 Operational conditions and risk management measures

## Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

#### Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

### **Duration, frequency and amount**

Not applicable

## Environmental factors not influenced by risk management

Not applicable

## Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site



#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

#### Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in Cleaning Agents - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC10, PROC11, PROC13, PROC19, PROC2,
	PROC3, PROC4, PROC8a, PROC8b
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Processes tasks activities covered	·

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

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liauid

#### Duration, frequency and amount

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## Contributing Scenarios/

#### Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a nonquantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

## Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in oil field drilling and production operations -	Professional
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b
Environmental Release Categories	ERC8D
Specific Environmental Release Category	

#### Processes, tasks, activities covered

Oil field well drilling operations (including drilling muds and well cleaning) including material transfers, on-site formulation, well head operations, shaker room activities and related maintenance.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

## **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

#### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

## Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site

Not applicable

## Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

## Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Lubricants - Professional (Low Release)	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC10, PROC11, PROC13, PROC17,
-	PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a,
	PROC8b, PROC9
Environmental Release Categories	ERC9A, ERC9B
Specific Environmental Release Category	
Processes, tasks, activities covered	

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

## Section 2 Operational conditions and risk management measures

## Section 2.1 Control of worker exposure

#### Product Characteristic

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

## Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## **Contributing Scenarios/**

## **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

#### **Duration, frequency and amount**

Not applicable

### Environmental factors not influenced by risk management

Not applicable

## Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Lubricants - Professional (High Release)	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC10, PROC11, PROC13, PROC17,
	PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a,
	PROC8b, PROC9
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Processes, tasks, activities covered	

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

## Section 2 Operational conditions and risk management measures

## Section 2.1 Control of worker exposure

#### Product Characteristic

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

## Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## **Contributing Scenarios/**

## **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

## General measures (Aspiration Hazard)

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

#### **Duration, frequency and amount**

Not applicable

### Environmental factors not influenced by risk management

Not applicable

## Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

## Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Metal working fluids / rolling oils - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC10, PROC11, PROC13, PROC17, PROC2,
	PROC3, PROC5, PROC8a, PROC8b, PROC9
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Dragona tooks activities severed	· · · · · · · · · · · · · · · · · · ·

#### Processes, tasks, activities covered

Covers the use in formulated MWFs (MWFs) including transfer operations, open and contained cutting/machining activities, automated and manual application of corrosion protections, draining and working on contaminated/reject articles, and disposal of waste oils.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

## **Contributing Scenarios/**

#### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

## Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use as binders and release agents - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC10, PROC11, PROC14, PROC2, PROC3, PROC4, PROC6, PROC8a, PROC8b
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Processes, tasks, activities covered	<u> </u>

Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

### **Contributing Scenarios/**

## Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

## **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

## Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

## Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant



Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use as a fuel - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC16, PROC2, PROC3, PROC8a, PROC8b
Environmental Release Categories	ERC9A, ERC9B
Specific Environmental Release Category	
B 4 1 4 14 1	·

#### Processes, tasks, activities covered

Covers the use as a fuel (or fuel additive), and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### Product Characteristic

Liauid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

## **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

#### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### **Duration, frequency and amount**

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site

Not applicable

## Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

## Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Functional Fluids - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC2, PROC20, PROC3, PROC8a, PROC9
Environmental Release Categories	ERC9A, ERC9B
Specific Environmental Release Category	

#### Processes, tasks, activities covered

Use as functional fluids e.g. cable oils, transfer oils, insulators, refrigerants, hydraulic fluids in closed professional equipment including incidental exposures during maintenance and related material transfers.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### Product Characteristic

Liauid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

## **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

#### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

### Organisation measures to prevent/limit release from site

Not applicable

#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment



Section 1 Exposure Scenario Title			
Title:			
De-icing and anti-icing applications - Professional			
Use Descriptor			
Sector(s) of Use	SU22		
Process Categories	PROC1, PROC11, PROC2, PROC8a, PROC8b		
Environmental Release Categories	ERC8D		
Specific Environmental Release Category			
Processes, tasks, activities covered			
Ice prevention and de-icing of vehicles, aircraft and other ed	juipment by spraying.		
Section 2 Operational conditions and risk managemen			
Section 2.1 Control of worker exposure			
Product Characteristic			
Liquid			
Duration, frequency and amount			
Covers daily exposures up to 8 hours (unless stated differen	ntly)[G2]		
Covers percentage substance in the product up to 100 %[G	13 ]		
Other given operational conditions affecting workers ex	posure		
Assumes a good basic standard of occupational hygiene is	implemented [G1]		
Contributing Scenarios/			
<b>Specific Risk Management Measures and Operating Co</b>	nditions		
(only required controls to demonstrate safe use listed)			
General measures (Aspiration Hazard)			
The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-			
quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also			
if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following			
measures need to be implemented to control the aspiration			
Do not ingest. If swallowed then seek immediate medical a	attention. Do NOT induce vomiting.		
Section 2.2 Control of environmental exposure	dicention. Botto i madoc vorming.		
Product characteristics			
Not applicable			
Duration, frequency and amount			
Not applicable			
Environmental factors not influenced by risk management	ent		
Not applicable			
Other given operational conditions affecting environmental exposure			
Not applicable			
Technical conditions and measures at process level (source) to prevent release			
Not applicable			
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil			
Not applicable			
Organisation measures to prevent/limit release from sit	e		
Not applicable			
Conditions and measures related to municipal sewage t	reatment plant		
Not applicable			

Conditions and measures related to external treatment of waste for disposal



Conditions and measures related to external recovery of waste

Not applicable

## Section 3 Exposure Estimation

3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title		
Title:		
Road and construction applications		
Use Descriptor		
Sector(s) of Use	SU22	
Process Categories	PROC1, PROC10, PROC11, PROC13, PROC2, PROC8a, PROC8b, PROC9	
Environmental Release Categories	ERC8D, ERC8F	
Specific Environmental Release Category		
Processes, tasks, activities covered		
Bulk loading (including marine vessel/barge, rail/road car		
Section 2 Operational conditions and risk management	ent measures	
Section 2.1 Control of worker exposure		
Product Characteristic		
Liquid		
Duration, frequency and amount		
Covers daily exposures up to 8 hours (unless stated differ	ently)[G2]	
Covers percentage substance in the product up to 100 %	[G13 ]	
Other given operational conditions affecting workers		
Assumes a good basic standard of occupational hygiene i	s implemented [G1]	
Contributing Scenarios/ Specific Risk Management Measures and Operating Conditions		
(only required controls to demonstrate safe use listed)		
General measures (Aspiration Hazard) The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.  Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.		
Section 2.2 Control of environmental exposure  Product characteristics		
Not applicable		
Duration, frequency and amount		
Not applicable		
Environmental factors not influenced by risk manager	ment	
Not applicable		
	nental evnesure	
Other given operational conditions affecting environmental exposure  Not applicable		
Technical conditions and measures at process level (source) to prevent release		
Not applicable		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		
Not applicable		
Organisation measures to prevent/limit release from site		
Not applicable		
Conditions and measures related to municipal sewage treatment plant		
Not applicable		
	weets for disposal	
Conditions and measures related to external treatment of	Conditions and measures related to external treatment of waste for disposal	



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment



Section 1 Exposure Scenario Title			
Title:			
Use in laboratories - Professional			
Use Descriptor			
Sector(s) of Use	SU22		
Process Categories	PROC15		
Environmental Release Categories			
Specific Environmental Release Category			
Processes, tasks, activities covered			
Use of small quantities within laboratory settings, including			
Section 2 Operational conditions and risk management	ent measures		
Section 2.1 Control of worker exposure			
Product Characteristic			
Liquid			
Duration, frequency and amount			
Covers daily exposures up to 8 hours (unless stated different			
Covers percentage substance in the product up to 100 %[			
Other given operational conditions affecting workers			
Assumes a good basic standard of occupational hygiene is	s implemented [G1]		
Contributing Scenarios/			
Specific Risk Management Measures and Operating C	onditions		
(only required controls to demonstrate safe use listed)			
	General measures (Aspiration Hazard)		
The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-			
quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also			
if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following			
	measures need to be implemented to control the aspiration hazard.		
Do not ingest. If swallowed then seek immediate medica	I attention. Do NOT induce vomiting.		
Section 2.2 Control of environmental exposure			
Product characteristics			
Not applicable			
Duration, frequency and amount			
Not applicable			
Environmental factors not influenced by risk management			
Not applicable			
Other given operational conditions affecting environmental exposure			
Not applicable .			
Technical conditions and measures at process level (source) to prevent release			
Not applicable			
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil			
Not applicable			
Organisation measures to prevent/limit release from site			
Not applicable			
Conditions and measures related to municipal sewage treatment plant			
Not applicable			

Conditions and measures related to external treatment of waste for disposal



Conditions and measures related to external recovery of waste

Not applicable

## Section 3 Exposure Estimation

## 3.1. Health

Not applicable

#### 3.2. Environment

Not applicable

## Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Explosives manufacture & use	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC3, PROC5, PROC8a, PROC8b
Environmental Release Categories	ERC8E
Specific Environmental Release Category	
Durance and the section of the second	·

#### Processes, tasks, activities covered

Covers exposures arising from the manufacture and use of slurry explosives (including materials transfer, mixing and charging) and equipment cleaning.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liauid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

#### Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

#### **Contributing Scenarios/**

### Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

## **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

#### Section 2.2 Control of environmental exposure

#### **Product characteristics**

Not applicable

#### Duration, frequency and amount

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Technical conditions and measures at process level (source) to prevent release

Not applicable

#### Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

#### Organisation measures to prevent/limit release from site

Not applicable

### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Polymer processing - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC14, PROC2, PROC21, PROC6, PROC8a,
	PROC8b
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Processes tacks activities covered	·

#### Processes, tasks, activities covered

Processing of formulated polymers including material transfers, moulding and forming activities, material re-works and associated maintenance.

## Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

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

Covers percentage substance in the product up to 100 %[G13]

## Other given operational conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented [G1]

### **Contributing Scenarios/**

## Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

#### **General measures (Aspiration Hazard)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting.

## Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

#### Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

## Technical conditions and measures at process level (source) to prevent release

Not applicable

## Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil

Not applicable

## Organisation measures to prevent/limit release from site

Not applicable

### Conditions and measures related to municipal sewage treatment plant



Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Water treatment chemicals - Professional	
Use Descriptor	
Sector(s) of Use	SU22
Process Categories	PROC1, PROC13, PROC2, PROC3, PROC4, PROC8a, PROC8b
Environmental Release Categories	ERC8F
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers the use of the substance for the treatment of wat	er in open and closed systems.
Section 2 Operational conditions and risk manager	nent measures
Section 2.1 Control of worker exposure	
Product Characteristic	
Liquid	
Duration, frequency and amount	
Covers daily exposures up to 8 hours (unless stated diffe	erently)[G2]
Covers percentage substance in the product up to 100 %	6[G13 <sup>-</sup> ]
Other given operational conditions affecting workers	
Assumes a good basic standard of occupational hygiene	is implemented [G1]
Contributing Scenarios/	
<b>Specific Risk Management Measures and Operating</b>	Conditions
(only required controls to demonstrate safe use listed)	
if it is vomited following ingestion. A DNEL cannot be detected by implementing risk management me measures need to be implemented to control the aspirat Do not ingest. If swallowed then seek immediate medical process.	perties (i.e. viscosity) that can occur during ingestion and also rived. Risks from the physicochemical hazards of substances asures. For substances classified as H304, the following ion hazard.
Section 2.2 Control of environmental exposure	
Product characteristics	
Not applicable	
Duration, frequency and amount	
Not applicable	
Environmental factors not influenced by risk manage	ement
Not applicable	
Other given operational conditions affecting environ	mental exposure
Not applicable	-

Not applicable

Organisation measures to prevent/limit release from site

Not applicable

Not applicable

Conditions and measures related to municipal sewage treatment plant

Technical conditions and measures at process level (source) to prevent release

Not applicable

Conditions and measures related to external treatment of waste for disposal

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil



Not applicable

Conditions and measures related to external recovery of waste

Not applicable

Section 3 Exposure Estimation

3.1. Health

Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]

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

4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in Coatings - Consumer	
Use Descriptor	
Sector(s) of Use	SU21
Product Categories	PC01, PC04, PC08, PC09A, PC09B, PC09C, PC15,
	PC18, PC23, PC24, PC31, PC34
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Processes tasks activities covered	·

Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

# Section 2 Operational conditions and risk management measures

# Section 2.1 Control of consumer exposure

#### Product Characteristic

Liquid

#### Duration, frequency and amount

Not applicable

#### Other given operational conditions affecting consumer exposure

General measures (Aspiration Hazard) The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard. Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce

vomiting. Just a sip of lamp oil - or even sucking the wick of lamps may lead to life threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

#### **Contributing Scenarios/**

### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

# Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

# **Duration, frequency and amount**

Not applicable

# Environmental factors not influenced by risk management

Not applicable

# Other given operational conditions affecting environmental exposure

Not applicable

# Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation



3.1. Health

Not applicable

# 3.2. Environment

Not applicable

# Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

# 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use in Cleaning Agents - Consumer	
Use Descriptor	
Sector(s) of Use	SU21
Product Categories	PC03, PC04, PC08, PC09A, PC09B, PC09C, PC24, PC35, PC38
Environmental Release Categories	ERC8A, ERC8D
Specific Environmental Release Category	
Daniel and a section of the second of the se	

#### Processes, tasks, activities covered

Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.

### Section 2 Operational conditions and risk management measures

### Section 2.1 Control of consumer exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

Not applicable

# Other given operational conditions affecting consumer exposure

General measures (Aspiration Hazard) The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard. Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce

vomiting. Just a sip of lamp oil - or even sucking the wick of lamps may lead to life threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

#### **Contributing Scenarios/**

#### Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

# Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

# Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

# Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

# Section 3 Exposure Estimation

3.1. Health



Not applicable

#### 3.2. Environment

Not applicable

# Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

#### 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Lubricants - Consumer (Low Release)	
Use Descriptor	
Sector(s) of Use	SU21
Product Categories	PC01, PC24, PC31
Environmental Release Categories	ERC9A, ERC9B
Specific Environmental Release Category	
5 4 1 4 14	<u> </u>

#### Processes, tasks, activities covered

Covers the consumer use of formulated lubricants in closed and open systems including transfer operations, application, operation of engines and similar articles, equipment maintenance and disposal of waste oil.

# Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of consumer exposure

#### Product Characteristic

Liquid

# Duration, frequency and amount

Not applicable

# Other given operational conditions affecting consumer exposure

General measures (Aspiration Hazard) The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard. Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce

vomiting. Just a sip of lamp oil - or even sucking the wick of lamps may lead to life threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

#### **Contributing Scenarios/**

#### Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

# Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

# Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

# Section 3 Exposure Estimation

## 3.1. Health



# 3.2. Environment

Not applicable

# Section 4 Guidance to check compliance with the Exposure Scenario

# 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

# 4.2. Environment



Section 1 Exposure Scenario Title		
Title:		
Lubricants - Consumer (High Release)		
Use Descriptor		
Sector(s) of Use	SU21	
Product Categories	PC01, PC24, PC31	
Environmental Release Categories	ERC8A, ERC8D	
Specific Environmental Release Category		
Dragona tooks estivities severed	•	

#### Processes, tasks, activities covered

Covers the consumer use of formulated lubricants in closed and open systems including transfer operations, application, operation of engines and similar articles, equipment maintenance and disposal of waste oil.

# Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of consumer exposure

### Product Characteristic

Liquid

#### **Duration, frequency and amount**

Not applicable

# Other given operational conditions affecting consumer exposure

General measures (Aspiration Hazard) The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard. Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce

vomiting. Just a sip of lamp oil - or even sucking the wick of lamps may lead to life threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

#### **Contributing Scenarios/**

#### Specific Risk Management Measures and Operating Conditions

(only required controls to demonstrate safe use listed)

#### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

# **Duration, frequency and amount**

Not applicable

# Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

# Section 3 Exposure Estimation

## 3.1. Health



# 3.2. Environment

Not applicable

# Section 4 Guidance to check compliance with the Exposure Scenario

# 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

# 4.2. Environment



Section 1 Exposure Scenario Title	
Title:	
Use as a fuel - Consumer	
Use Descriptor	
Sector(s) of Use	SU21
Product Categories	PC13
Environmental Release Categories	ERC9A, ERC9B
Specific Environmental Release Category	
Processes, tasks, activities covered	
Covers consumer uses in liquid fuels.	
Section 2 Operational conditions and risk management	gement measures
Section 2.1 Control of consumer exposure	
Product Characteristic	
Liquid	
Duration, frequency and amount	
Not applicable	
Other given operational conditions affecting cons	sumer exposure
occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard. Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps may lead to life threatening lung damage. Keep lamps filled with this liquid out of the reach of children.  Contributing Scenarios/ Specific Risk Management Measures and Operating Conditions	
(only required controls to demonstrate safe use listed  Section 2.2 Control of environmental exposure  Product characteristics	·)
Not applicable	
Duration, frequency and amount	
Not applicable	
Environmental factors not influenced by risk management	
Not applicable	
Other given operational conditions affecting environmental exposure	
Not applicable	
Conditions and measures related to municipal sewage treatment plant	
Not applicable	
Conditions and measures related to external treatment of waste for disposal	
Not applicable	1
Conditions and measures related to external recovery	v of waste
Not applicable	,
Section 3 Exposure Estimation	
3.1. Health	

Not applicable 3.2. Environment



Not applicable		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.1. Health		
Not applicable		
4.2. Environment		
Not applicable		



Section 1 Exposure Scenario Title		
Title:		
Functional Fluids - Consumer		
Use Descriptor		
Sector(s) of Use	SU21	
Product Categories	PC16, PC17	
Environmental Release Categories	ERC9A, ERC9B	
Specific Environmental Release Category		
Processes tasks activities covered	·	

#### Processes, tasks, activities covered

Use of sealed items containing functional fluids e.g. transfer oils, hydraulic fluids, refrigerants.

## Section 2 Operational conditions and risk management measures

# Section 2.1 Control of consumer exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

Not applicable

# Other given operational conditions affecting consumer exposure

General measures (Aspiration Hazard) The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard. Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce

vomiting. Just a sip of lamp oil - or even sucking the wick of lamps may lead to life threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

### **Contributing Scenarios/**

#### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

#### Section 2.2 Control of environmental exposure

### Product characteristics

Not applicable

### **Duration, frequency and amount**

Not applicable

# Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

#### Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

#### Section 3 Exposure Estimation

#### 3.1. Health

Not applicable

#### 3.2. Environment



Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

#### 4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

# 4.2. Environment



Section 1 Exposure Scenario Title		
Title:		
Uses in cosmetics/personal care products, perfumes and fragrances – Consumer		
Use Descriptor		
Sector(s) of Use	SU21	
Product Categories	PC28, PC39	
Environmental Release Categories	ERC8A, ERC8D	
Specific Environmental Release Category		

#### Processes, tasks, activities covered

Consumer uses e.g. as a carrier in cosmetics/personal care products, perfumes and fragrances. Note: For cosmetic and personal care products, risk assessment only required for the environment under REACH as human health is covered by alternative legislation.

# Section 2 Operational conditions and risk management measures

# Section 2.1 Control of consumer exposure

#### **Product Characteristic**

Liquid

#### **Duration, frequency and amount**

Not applicable

#### Other given operational conditions affecting consumer exposure

General measures (Aspiration Hazard) The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard. Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce

vomiting. Just a sip of lamp oil - or even sucking the wick of lamps may lead to life threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

#### Contributing Scenarios/

#### **Specific Risk Management Measures and Operating Conditions**

(only required controls to demonstrate safe use listed)

#### Section 2.2 Control of environmental exposure

#### Product characteristics

Not applicable

#### Duration, frequency and amount

Not applicable

# Environmental factors not influenced by risk management

Not applicable

#### Other given operational conditions affecting environmental exposure

Not applicable

# Conditions and measures related to municipal sewage treatment plant

Not applicable

Conditions and measures related to external treatment of waste for disposal

Not applicable

Conditions and measures related to external recovery of waste

Not applicable

# Section 3 Exposure Estimation

#### 3.1. Health



Not applicable

3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment

Not applicable

- End of annex -