SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 38073

FLUIDE XLD FE

Date of the previous version: 2019-05-01 **Revision Date:** 2020-07-07 **Version** 6

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name **FLUIDE XLD FE**
Number P9K
Substance/mixture Mixture***

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Transmission fluid.

1.3. Details of the supplier of the safety data sheet

Supplier

A - TOTAL UK LIMITED
183 Eversholt St, Kings Cross
London, NW1 1BU
UNITED KINGDOM
Tel: +44 (0)20 7339 8000
Fax: +44 (0)20 7339 8033

B - TOTAL LUBRIFIANTS
562 Avenue du Parc de L'ile
92029 Nanterre Cedex
FRANCE
Tél: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71***

For further information, please contact:

Contact Point A - HSE

B - HSE***

E-mail Address A - rm.gb-msds@total.co.uk

B - rm.msds-lubs@total.com***

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670

UK: National Poisons Information Service (NPIS): NHS on 111 or a doctor

Section 2: HAZARDS IDENTIFICATION

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008 ***
*For the full text of the H-Statements mentioned in this Section, see Section 2.2.****

Classification
The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008***
Acute inhalation toxicity - dust/mist - Category 4*** - (H332)***
Chronic aquatic toxicity - Category 3*** - (H412)***

2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008

Contains Distillates (petroleum), hydrotreated light paraffinic

Signal word
WARNING***

Hazard Statements ***
H332 - Harmful if inhaled
H412 - Harmful to aquatic life with long lasting effects***

Precautionary statements
P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable***

Supplemental Hazard Statements
***

EUH208 - Contains 1,2-Propanediol,3-amino-,N,N-dicoco alkyl derivs, Acetamide, 2-hydroxy-, N,N-dicoco alkyl derivatives, 1-(tert-dodecylthio)propan-2-ol, benzenesulfonic acid, 4-(branched alkyl derivs.) and benzenesulfonic acid, 4-(linear alkyl dervis.), calcium salts,C14-18 alpha-olefin epoxide, reaction products with boric acid. May produce an allergic reaction***

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.***

Environmental properties The product may form an oil film on the water surface that may stop the oxygen exchange.

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

Should not be released into the environment.***

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

Chemical nature Mineral oil of petroleum origin.***

Hazardous components

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	Classification (Reg. 1272/2008)
Distillates (petroleum), hydrotreated light paraffinic***	265-158-7	01-2119487077-29	64742-55-8	40-<50	Asp. Tox. 1 (H304) Acute Tox. 4 (H332)
Distillates (petroleum), hydrotreated light paraffinic***	265-158-7	01-2119487077-29	64742-55-8	3-<5	Asp. Tox. 1 (H304)
Distillates (petroleum), hydrotreated heavy paraffinic***	265-157-1	01-2119484627-25	64742-54-7	3-<5	Asp. Tox. 1 (H304)
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich***	800-172-4	01-2119969520-35	398141-87-2	1-<2.5	Aquatic Chronic 2 (H411)
Acetamide, 2-hydroxy-, N,N-dicoco alkyl derivatives***	471-920-1	01-0000019770-68	^	0.1-<1	Skin Sens. 1 (H317)
1,2-Propanediol,3-amino-,N,N-dicoco alkyl derivs***	482-000-4	01-0000020142-86	^	0.25-<1	Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)
1-(tert-dodecylthio)propan-2-ol***	266-582-5	01-2119953277-30	67124-09-8	0.25-<1	Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)***
benzenesulfonic acid, 4-(branched alkyl derivs.) and benzenesulfonic acid, 4-(linear alkyl dervis.), calcium salts***	-	no data available	^	0.1-<1	Skin Sens. 1B (H317)
C14-18 alpha-olefin epoxide, reaction products with boric acid***	939-580-3	01-2119976364-28	^	0.1-<1	Skin Sens. 1B (H317)
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol ***	620-540-6	01-2119510877-33	1218787-32-6	0.1-<0.25	Skin Corr. 1B (H314) Eye Dam. 1 (H318) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Acute M Factor 10 Chronic M factor 1***
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol***	202-414-9	01-2119777867-13	95-38-5	0.025-<0.1	Eye dam. 1 (H318) Acute Tox. 4 (H302) Skin Corr. 1C (H314) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Acute M factor = 10 Chronic M factor = 1

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.***

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.***

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Take victim immediately to hospital.***

Inhalation Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.***

Ingestion Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.***

Protection of first-aiders First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.***

4.2. Most important symptoms and effects, both acute and delayed

Eye contact Based on available data, the classification criteria are not met.

Skin contact Based on available data, the classification criteria are not met. May produce an allergic reaction. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.

Inhalation Harmful if inhaled. Inhalation of vapours in high concentration may cause irritation of respiratory system.***

Ingestion Based on available data, the classification criteria are not met. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Notes to physician Treat symptomatically.***

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media Carbon dioxide (CO_2). ABC powder. Foam. Water spray or fog.***

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S, Mercaptans, Nitrogen oxides (NOx), Phosphorous oxides.***

5.3. Precautions for fire-fighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.***

6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.***

6.3. Methods and material for containment and cleaning up

Methods for containment Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.***

Methods for cleaning up Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.***

6.4. Reference to other sections

Personal protective equipment See Section 8 for more detail.

Waste treatment See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Do not breathe

vapours or spray mist. Avoid contact with skin, eyes and clothing.***

Prevention of fire and explosion Take precautionary measures against static discharges.***

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.***

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Store at room temperature. Protect from moisture.

Materials to avoid Strong oxidising agents.

7.3. Specific use(s)

Specific use(s) Please refer to Technical Data Sheet for further information.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parametres

Exposure limits Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m^3, NIOSH (REL) TWA 5 mg/m^3, STEL 10 mg/m^3, ACGIH (TLV) TWA 5 mg/m^3 (highly refined)

Legend See section 16.

Derived No Effect Level (DNEL)

DNEL Worker (Industrial/Professional)

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8				5.4 mg/m^3/8h (aerosol - inhalation)
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7			970 µg/kg bw/day (dermal) 2.73 mg/m^3 (inhalation)***	5.58 mg/m^3 (inhalation)***
Thiophene, tetrahydro-, 1,1-dioxide,			3.1 mg/m^3 (inhalation) 44 mg/kg bw/day	

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

3-(C9-11-isoalkyloxy) derivs., C10-rich*** 398141-87-2			(dermal)	
1-(tert-dodecylthio)propan-2-ol*** 67124-09-8		0.2154 mg//cm² Dermal	11.8 mg/m³ Inhalation 3.34 mg/kg bw/day Dermal	
C14-18 alpha-olefin epoxide, reaction products with boric acid*** ^			5.88 mg/m³ Inhalation 16.7 mg/kg bw/day Dermal	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol *** 1218787-32-6			2.112 mg/m³ (inhalation) 0.300 mg/kg bw/day (dermal)	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol*** 95-38-5	2 mg/kg bw/day Dermal 14 mg/m³ Inhalation		0.06 mg/kg bw/day Dermal 0.46 mg/m³ Inhalation	

DNEL Consumer

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8				1.2 mg/m³/24h (aerosol - inhalation)
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7			740 µg/kg bw/day (oral)***	1.19 mg/m³ (inhalation)***
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich*** 398141-87-2			0.8 mg/m³ (inhalation) 22 mg/kg bw/day (oral) 0.4 mg/kg bw/day (oral)	
1-(tert-dodecylthio)propan-2-ol*** 67124-09-8		0.1077 mg/cm² Dermal	2.9 mg/m³ Inhalation 1.67 mg/kg bw/day Dermal 0.84 mg/kg bw/day Oral	
C14-18 alpha-olefin epoxide, reaction products with boric acid*** ^			1.45 mg/m³ Inhalation 8.3 mg/kg bw/day Dermal 0.83 mg/kg bw/day Oral	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol *** 1218787-32-6			0.745 mg/m³ (inhalation) 0.214 mg/kg bw/day (dermal) 0.214 mg/kg bw/day (oral)	

Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7						9.33 mg/kg food***
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich*** 398141-87-2	0.0024 mg/l fw 0.00024 mg/l mw 0.024 mg/l or	0.435 mg/kg sediment dw fw 0.0435 mg/kg sediment dw mw	0.086 mg/kg soil dw		100 mg/l	6.66 mg/kg food
1-(tert-dodecylthio)propan-2-ol*** 67124-09-8	0.0064 mg/l fw 0.00064 mg/l mw 0.0058 mg/l or	1.8 mg/kg dw fw 0.18 mg/kg dw mw	0.21895 mg/kg dw		100 mg/l	
benzenesulfonic acid, 4-(branched alkyl derivs.) and benzenesulfonic acid, 4-(linear alkyl dervis.), calcium salts*** ^	0.1 mg/l (fw) 0.1 mg/ (mw) 1 mg/l (or)	45211 mg/kg sediment dw 'fw) 45211 mg/kg sediment dw (mw)	47025 mg/kg soil dw		1 g/l	
C14-18 alpha-olefin epoxide, reaction products with boric acid*** ^	0.2 mg/l fw 0.02 mg/l mw 1 mg/l or	8556 mg/kg dw fw 855.6 mg/kg dw mw	1706.3 mg/kg dw		100 mg/l	33.3 mg/kg food
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol *** 1218787-32-6	0.000214 mg/l (fw) 0.0000214 mg/l (mw) 0.000870 mg/l (ir)	1.692 mg/kg dw (fw) 0.1692 mg/kg dw (mw)	5 mg/kg dw		1.5 mg/l	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol*** 95-38-5	0.00003 mg/l fw 0.000003 mg/l mw 0.0003 mg/l or	0.376 mg/kg dw fw 0.0376 mg/kg dw mw	0.075 mg/kg dw		0.27 mg/l	

8.2. Exposure controls

Occupational Exposure Controls

Engineering measures Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.***

Personal protective equipment

General Information Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product AS DELIVERED. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.***

Respiratory protection None under normal use conditions. When workers are facing concentrations above the

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P2. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.***

Eye protection If splashes are likely to occur, wear:. Safety glasses with side-shields. EN 166.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type 4/6.

Hand protection Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Environmental exposure controls

General Information The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance		Clear	
Colour		red	
Physical state @20°C		liquid	
Odour		characteristic	
Odour Threshold		No information available	
Property	**Values**	**Remarks**	**Method**
pH		Not applicable	
Melting point/range		Not applicable	
Boiling point/boiling range		No information available	
Flash point	**212 °C**		Cleveland Open Cup (COC)
	414 °F		Cleveland Open Cup (COC)
Evapouration rate		No information available	
Flammability Limits in Air			
Upper		No information available	
Lower		No information available	
Vapour pressure		No information available	
Vapour density		No information available	
Relative density	0.800 - 0.900	@ 15 °C	ISO 12185
Density	800 - 900 kg/m³	@ 15 °C	ISO 12185
Water solubility		Insoluble	

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

Solubility in other solvents		No information available	
logPow		No information available***	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	32.2 - 35.6 mm2/s	@ 40 °C	ASTM D 445
Explosive properties	Not explosive		
Oxidising properties	Not applicable		
Possibility of hazardous reactions	None under normal processing		

9.2. Other information

Freezing point No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information None under normal processing.***

10.2. Chemical stability

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.***

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks.***

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.***

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S, Mercaptans, Nitrogen oxides (NOx), Phosphorous oxides.***

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity Local effects Product Information

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

Skin contact . Based on available data, the classification criteria are not met. May produce an allergic reaction. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.

Eye contact . Based on available data, the classification criteria are not met.

Inhalation . Harmful if inhaled. Inhalation of vapours in high concentration may cause irritation of respiratory system.***

Ingestion . Based on available data, the classification criteria are not met. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

ATEmix (inhalation-dust/mist) 3.00*** mg/l***
ATEmix (inhalation-vapour) 480.70*** mg/l***

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated light paraffinic***			LC50(4h) 3.9 mg/l (rat)***
Distillates (petroleum), hydrotreated light paraffinic***	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)
Distillates (petroleum), hydrotreated heavy paraffinic***	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich***	LD50 > 10 mL/kg bw (rat)	LD50 > 4000 < 8000 mg/kg bw (rabbit - US 16 CFR 1500.3)	
Acetamide, 2-hydroxy-, N,N-dicoco alkyl derivatives***	LD50 > 2000 mg/kg (rat)	LD50 > 2000 mg/kg (rat)	
1-(tert-dodecylthio)propan-2-ol***	LD50 > 5000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit - OECD 434)	
C14-18 alpha-olefin epoxide, reaction products with boric acid***	LD50 > 16000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rat - OECD 402)	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol ***	LD50 1200 - 2000 mg/kg bw (rat)		
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol***	LD50 1265 mg/kg (Rat - OECD 401)	LD50 > 2000 mg/kg (Rat)	

Sensitisation

Sensitisation Based on available data, the classification criteria are not met. Contains senitizer(s). May produce an allergic reaction.

Specific effects

Carcinogenicity Based on available data, the classification criteria are not met.
Mutagenicity .
Germ cell mutagenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

Repeated dose toxicity

Target Organ Effects (STOT)

Specific target organ systemic toxicity (single exposure) Based on available data, the classification criteria are not met.

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.

Aspiration toxicity Based on available data, the classification criteria are not met.

Other information

Other adverse effects Characteristic skin lesions (oil blisters) may develop following prolonged and repeated exposures (contact with contaminated clothing).

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

Acute aquatic toxicity - Product Information***

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8		EL50(48h) > 1000 mg/l (Daphnia magna - OECD 202)***	LL50(96h) >100 mg/l (Pimephales promelas - OECD 203)	
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8	EL50 (48h) > 100 mg (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7	EL50 (48h) > 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich*** 398141-87-2	EbL50 (72h) 3.5 mg/l (Desmodesmus subspicatus - OECD 201) ErL50 (72h) 63 mg/l (Desmodesmus subspicatus - OECD 201)	EC50 (48h) 4.6 mg/l (Daphnia magna - OECD 202)	LL50 (96h) 2.4 mg/l (Oncorhynchus mykiss - OECD 203)	
Acetamide, 2-hydroxy-, N,N-dicoco alkyl derivatives*** ^	EL50 (72h) >160 mg/l (Desmodesmus subspicatus) EL50 (72h) 130 mg/l (Desmodesmus subspicatus) EC50 100-1000 mg/l	EL50(48h) 180 mg/l (Daphnia magna)	LL50 (96h) 610 mg/l (Oncorhynchus mykiss) EC50 100-1000 mg/l	
1-(tert-dodecylthio)propan-2-ol*** 67124-09-8		EL50 (48h) 0.58 mg/l (Daphnia magna - static - OECD 202)	LL50 (96h) 0.75 mg/l (Oncorhynchus mykiss - semi static - OECD 203)	
benzenesulfonic acid, 4-(branched alkyl derivs.) and benzenesulfonic acid,	EC50(72h) > 1000 mg/l (Selenastrum capricomutum)	EC50(48h) > 1000 mg/l (Cladocere)	LC50(96h) > 100 mg/l (Oncorhynchus mykiss) LC50(96h) > 10000 mg/l	LC50(3h) >10000 mg/l (sludge)

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

4-(linear alkyl dervis.), calcium salts*** ^			(Cyprinodon variegatus)	
C14-18 alpha-olefin epoxide, reaction products with boric acid*** ^	EL50 (72h) > 100 mg/l (Pseudokirchnerella subcapitata - static - OECD 201)	EL50 (48h) >= 100 mg/l (Daphnia magna - static - OECD 202)	LL50 (96h) > 100 m/l (Oncorhynchus mykiss - semi static - OECD 203)	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol *** 1218787-32-6	EC50(72h) 0.0538 mg/l (Pseudokirchneriella subcapitata) NOEC(72h) 0,0156 mg/l (Pseudokirchneriella subcapitata)	EC50 (48h) 0.043 mg/l (Daphnia magna)	LC50(96h) 0.1 mg/l (Zebra Fish)	EC50(mud,3h) 167 mg/l
2-(2-heptadec-8-enyl-2-imid azolin-1-yl)ethanol*** 95-38-5	EC50 (72h) 0.03 mg/l (Desmodesmus subspicatus static - OECD 201)	EC50(48h) 0.136 mg/l (Daphnia magna semi-static - OECD 202)	LD50 (96h) 0.3 mg/l (Brachydanio rerio - OECD 203)	

Chronic aquatic toxicity - Product Information
No information available.

Chronic aquatic toxicity - Component Information
.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8		NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/21d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich*** 398141-87-2	NOELR (72h) 0.313 mg/l (Desmodesmus subspicatus - OECD 201)	NOEC (48h) 0.63 mg/l (Daphnia magna - OECD 202)	NOELR (96h) 1 mg/l (Oncorhynchus mykiss - OECD 203)	
Acetamide, 2-hydroxy-, N,N-dicoco alkyl derivatives*** ^	NOELR (72h) 20 mg/l (Desmodesmus subspicatus)	NOEC(21d) 56 mg/l (Dapnia Magna)		
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol *** 1218787-32-6		EC10(21d) 0.0107 mg/l (Daphnia magna)		

Effects on terrestrial organisms
No information available.***

12.2. Persistence and Degradability

General Information
No information available

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

12.3. Bioaccumulative potential

Product Information No information available.***

logPow No information available***

Component Information .***

Chemical Name	log Pow
Distillates (petroleum), hydrotreated heavy paraffinic*** - 64742-54-7	> 4***
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich*** - 398141-87-2	4.1
1-(tert-dodecylthio)propan-2-ol*** - 67124-09-8	4.7
benzenesulfonic acid, 4-(branched alkyl derivs.) and benzenesulfonic acid, 4-(linear alkyl dervis.), calcium salts*** - ^	10.88
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol *** - 1218787-32-6	3.6***
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol*** - 95-38-5	7.51

12.4. Mobility in soil

Soil Given its physical and chemical characteristics, the product generally shows low soil mobility.***

Air Loss by evaporation is limited.***

Water The product is insoluble and floats on water.***

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

General Information No information available.***

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products Should not be released into the environment. Do not empty into drains. Dispose of in accordance with the European Directives on waste and hazardous waste. Where possible recycling is preferred to disposal or incineration. After use, this oil must be sent to a licensed waste oil facility. Incorrect disposal of used oil poses a risk to the environment. Mixture with other waste types such as solvents, brake- and cooling liquids is forbidden.

Contaminated packageing Empty containers should be taken to an approved waste handling site for recycling or disposal.***

EWC Waste Disposal No According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions:. 13 02 05.

Other information Refer to section 8 for safety and protective measures for disposal personnel.

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

Section 14: TRANSPORT INFORMATION

ADR/RID not regulated

IMDG/IMO not regulated

ICAO/IATA not regulated

ADN

UN/ID No	ID9006
Hazard Class	9
Hazard Labels	none
Description	ID9006, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9 (1-(tert-dodecylthio)propan-2-ol, Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich)
Equipment Requirements	PP

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

REACH
All substances contained in this mixture have been pre-registered, registered or are exempt from registration in accordance with Regulation (CE) No. 1907/2006 (REACh)

International Inventories

All the substances contained in this product are listed or exempted from listing in the following inventories:
Europe (EINECS/ELINCS/NLP)
Korea (KECL)
New Zealand (NZIoC)
Philippines (PICCS)
Canada (DSL/NDSL)
Australia (AICS)
U.S.A. (TSCA)
Japan (ENCS)
Taiwan (TCSI)***

Further information

No information available

15.2. Chemical Safety Assessment

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

Chemical Safety Assessment No information available

15.3. National regulatory information

The United Kingdom

• Avoid exceeding occupational exposure limits (see section 8).

Ireland

• Avoid exceeding occupational exposure limits (see section 8).

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects***

Abbreviations, acronyms
ACGIH = American Conference of Governmental Industrial Hygienists
bw = body weight
bw/day = body weight/day
EC x = Effect Concentration associated with x% response
GLP = Good Laboratory Practice
IARC = International Agency for Research of Cancer
LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals
LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals
LL = Lethal Loading
NIOSH = National Institute of Occupational Safety and Health
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
NOEL = No Observed Effect Level
OECD = Organization for Economic Co-operation and Development
OSHA = Occupational Safety and Health Administration
UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material
ATE = Acute Toxicity Estimate
QSAR = Quantitative Structure-Activity Relationship
EL50 = median Effective Loading
NOELR = No Observed Effect Loading Rate
PAH = Polycyclic aromatic hydrocarbons
LOEC = Lowest Observed Effect Concentration
PVA = Polyvinyl alcohol

SDS # : 38073

FLUIDE XLD FE

Revision Date: 2020-07-07 **Version** 6

PVC = Polyvinyl chloride
ECOSAR = Ecological Structure Activity Relationships
CNS = Central nervous system
EPA = Environmental Protection Agency
ErL50 = effective loading on growth rate in algae test, to cause a 50% response
EbL50 = effective loading on growth with the control in algae test, to cause a 50% response
DNEL = Derived No Effect Level
PNEC = Predicted No Effect Concentration
dw = dry weight
fw = fresh water
mw = marine water
or = occasional release

Legend Section 8

OEL = Occupational Exposure Limit
TWA: Time Weight Average
STEL: Short Time Exposure Limit
PEL: Permissible exposure limit
REL: Recommended exposure limit
TLV: Threshold Limit Values

+	Sensitiser	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

Revision Date: 2020-07-07
Revision Note *** Indicates updated section.
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above.It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk.The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity.The user bears sole liability for the precautions required when using the product.The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive.It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet

LUBGES-AI-37973

1. Exposure scenario

Formulation additives, lubricants and greases, Industrial.

Use Descriptor
Sector of use
SU10 - Formulation
SU3 - Industrial Manufacturing (all)

Process category
PROC1 - Use in closed process, no likelihood of exposure
PROC2 - Use in closed, continuous process with occasional controlled exposure
PROC3 - Use in closed batch process (synthesis or formulation)
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC15 - Use as laboratory reagent

Environmental release category
ERC2 - Formulation of preparations

Specific Environmental Release Category
ATIEL-ATC SpERC 2.Ai-I.v1.

Processes, tasks, activities covered
Industrial formulation of lubricant additives, lubricants and greases. Includes material transfers, mixing, large and small scale packing, sampling, maintenance.

2. Operational conditions and risk management measures

2.1. Control of environmental exposure

Amounts used
Production volume in EU (tons/year) : 1.00E+04

Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.1
Frequency and duration of use
Emission Days (days/year): 300

Environment factors not influenced by risk management

Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Other operational conditions of use affecting environmental exposure
Negligible wastewater emissions as process operates without water contact.

Release fraction to air from process (after typical onsite RMMs): 5.00E-05
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 1.83E-11
Release fraction to soil from process (after typical onsite RMMs): 0
Technical conditions and measures at process level to prevent release
Common practices vary across sites thus conservative process release estimates used.

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil
Prevent discharge of undissolved substance to or recover from onsite wastewater
User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system

Treat air emission to provide a typical removal efficiency of (%): 70

Organizational measures to prevent/limit release from the site
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Conditions and measures related to municipal sewage treatment plant

Estimated substance removal from wastewater via domestic sewage treatment (%): 0.09
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 366 301
Assumed domestic sewage treatment plant flow (m3/d): 2.00E+03
Conditions and measures related to external treatment of waste for disposal
External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste
External recovery and recycling of waste should comply with applicable local and/or national regulations.

2.2. Control of exposure - Workers or Consumers

Product characteristics
Physical state
Liquid, vapour pressure < 0.5 kPa at STP

Concentration of substance in product
Covers percentage substance in the product up to 100 % (unless stated differently).

Amounts used
Not applicable.
Frequency and duration of use
Covers daily exposures up to 8 hours (unless stated differently)

Human factors not influenced by risk management
not applicable
Other operational conditions affecting exposure
Covers percentage substance in the product up to 100 % (unless stated differently).

2.2a. Control of worker exposure

Contributing Scenarios	Operational conditions and risk management measures
General measures applicable to all activities	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.
General exposures. Use in contained systems elevated temperature - PROC 2	No other specific measures identified.
Mixing operations (closed systems). Batch processes at elevated temperatures - PROC 3	Provide extract ventilation to points where emissions occur.
Mixing operations (open systems). Batch processes at elevated temperatures - PROC 4; 5	Provide extract ventilation to points where emissions occur. Avoid carrying out activities involving exposure for more than 4 hours.
Mixing operations (open systems) - PROC 4; 5	Provide extract ventilation to points where emissions occur.
Process sampling - PROC 4; 8b	Avoid carrying out activities involving exposure for more than 1 hour. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Bulk transfers; dedicated facility - PROC 8b	Avoid carrying out activities involving exposure for more than 4 hours. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.
Drum/batch transfers; dedicated facility - PROC 8b	Provide extract ventilation to points where emissions occur.
Drum/batch transfers; non-dedicated facility - PROC 8a	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour). Avoid carrying out activities involving exposure for more than 1 hour. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.
Equipment cleaning and maintenance - PROC 8a; 8b	Drain down and flush system prior to equipment break-in or maintenance. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls. Retain drain downs in sealed storage pending disposal or for subsequent recycle. Clear spills immediately.
Drum and small package filling - PROC 9	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour). Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Laboratory activities - PROC 15	Avoid carrying out activities involving exposure for more than 4 hours.
Storage - PROC 1; 2	Store substance within a closed system.

2.2b. Control of consumer exposure

Product Category(ies)	Operational conditions and risk management measures

Remarks
Not applicable.

3. Exposure estimation and references

Health
The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product

Environment

Used ECETOC TRA model.

4. Guidance for Downstream User (DU) to check compliance with the Exposure scenario

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

Environment
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries html). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

General For further information see www.atiel.org/reach/introduction

LUBGES-BI-37973

1. Exposure scenario

General use of lubricants and greases in vehicles or machinery. Industrial.

Use Descriptor
Sector of use
SU3 - Industrial Manufacturing (all)

Process category
PROC1 - Use in closed process, no likelihood of exposure
PROC2 - Use in closed, continuous process with occasional controlled exposure
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Environmental release category
ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
ERC7 - Industrial use of substances in closed systems

Specific Environmental Release Category
ATIEL-ATC SpERC 4.Bi.v1.

Processes, tasks, activities covered
Covers general use of lubricants and greases in vehiculs or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

2. Operational conditions and risk management measures

2.1. Control of environmental exposure

Amounts used
Production volume in EU (tons/year) : 2.63E+03

Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.1
Frequency and duration of use
Emission Days (days/year): 300

Environment factors not influenced by risk management

Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Other operational conditions of use affecting environmental exposure
Negligible wastewater emissions as process operates without water contact.

Release fraction to air from process (after typical onsite RMMs): 5.00E-05
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 1.83E-11
Release fraction to soil from process (after typical onsite RMMs): 0
Technical conditions and measures at process level to prevent release
Common practices vary across sites thus conservative process release estimates used.

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil
Prevent discharge of undissolved substance to or recover from onsite wastewater
User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system

Organizational measures to prevent/limit release from the site
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Conditions and measures related to municipal sewage treatment plant

Estimated substance removal from wastewater via domestic sewage treatment (%): 0.09
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 129 911
Assumed domestic sewage treatment plant flow (m3/d): 2.00E+03

Conditions and measures related to external treatment of waste for disposal
External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste
External recovery and recycling of waste should comply with applicable local and/or national regulations.

2.2. Control of exposure - Workers or Consumers

Product characteristics
Physical state
liquid

Vapour pressure
<0.5 kPa
Concentration of substance in product
Covers percentage substance in the product up to 100 % (unless stated differently).

Frequency and duration of use
Covers daily exposures up to 8 hours (unless stated differently)

Other operational conditions affecting exposure
Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented.

2.2a. Control of worker exposure

Contributing Scenarios	Operational conditions and risk management measures
General measures applicable to all activities	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.
General exposures (closed systems) - PROC 1	No other specific measures identified.
Initial factory fill of equipment Use in contained systems - PROC 2; 9	No other specific measures identified.
Initial factory fill of equipment (open systems) - PROC 8b	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour). Avoid carrying out activities involving exposure for more than 4 hours.
Operation of equipment containing engine oils and similar Use in contained systems - PROC 1	No other specific measures identified.
Equipment cleaning and maintenance - PROC 8b	Drain down system prior to equipment break-in or maintenance. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Retain drain downs in sealed storage pending disposal or for subsequent recycle.
Equipment cleaning and maintenance Operation is carried out at elevated temperature (> 20°C above ambient temperature) - PROC 8b	Drain down system prior to equipment break-in or maintenance. Provide extract ventilation to emission points when contact with warm (>50°C) lubricant is likely. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls. Retain drain downs in sealed storage pending disposal or for subsequent recycle.
Storage - PROC 1; 2	Store substance within a closed system.

2.2b. Control of consumer exposure	
Product Category(ies)	**Operational conditions and risk management measures**

Remarks
Not applicable.

3. Exposure estimation and references

Health
The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product

Environment
Used ECETOC TRA model.

4. Guidance for Downstream User (DU) to check compliance with the Exposure scenario

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

Environment
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries html). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

General For further information see www.atiel.org/reach/introduction

LUBGES-BP-37973

1. Exposure scenario

General use of lubricants and greases in vehicles or machinery. Professional.

Use Descriptor
Sector of use
SU22 – Professional uses

Process category
PROC1 - Use in closed process, no likelihood of exposure
PROC2 - Use in closed, continuous process with occasional controlled exposure
PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC20 - Heat and pressure transfer fluids in dispersive, professional use but closed systems

Environmental release category
ERC9a - Wide dispersive indoor use of substances in closed systems
ERC9b - Wide dispersive outdoor use of substances in closed systems

Specific Environmental Release Category
ATIEL-ATC SpERC 9.Bp.v1.

Processes, tasks, activities covered
Covers general use of lubricants and greases in vehiculs or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

2. Operational conditions and risk management measures

2.1. Control of environmental exposure

Amounts used
Production volume in EU (tons/year) : 5.39E+03

Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.1
Frequency and duration of use
Emission Days (days/year): 365

Environment factors not influenced by risk management

Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Other operational conditions of use affecting environmental exposure
Negligible wastewater emissions as process operates without water contact.

Release fraction to air from process (after typical onsite RMMs): 1.00E-04
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 5.00E-04
Release fraction to soil from process (after typical onsite RMMs): 1.00E-03
Technical conditions and measures at process level to prevent release
Common practices vary across sites thus conservative process release estimates used.

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil
Prevent discharge of undissolved substance to or recover from onsite wastewater

Organizational measures to prevent/limit release from the site
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Conditions and measures related to municipal sewage treatment plant

Estimated substance removal from wastewater via domestic sewage treatment (%): 0.09
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1 466
Assumed domestic sewage treatment plant flow (m3/d): 2.00E+03

Conditions and measures related to external treatment of waste for disposal
External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste
External recovery and recycling of waste should comply with applicable local and/or national regulations.

2.2. Control of exposure - Workers or Consumers

Product characteristics
Physical state
liquid

Vapour pressure
<0.5 kPa
Concentration of substance in product
Covers percentage substance in the product up to 100 % (unless stated differently).

Frequency and duration of use
Covers daily exposures up to 8 hours (unless stated differently)

Other operational conditions affecting exposure
Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented.

2.2a. Control of worker exposure

Contributing Scenarios	Operational conditions and risk management measures
General measures applicable to all activities	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.
Operation of equipment containing engine oils and similar; Use in contained systems - PROC 1	No other specific measures identified.
Material transfers; non-dedicated facility - PROC 8a	Avoid carrying out activities involving exposure for more than 4 hours. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Equipment cleaning and maintenance; dedicated facility - PROC 8b; 20	Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or for subsequent recycle.
Storage - PROC 1; 2	Store substance within a closed system.

2.2b. Control of consumer exposure

Product Category(ies)	Operational conditions and risk management measures

Remarks
Not applicable.

3. Exposure estimation and references

Health
The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product

Environment
Used ECETOC TRA model.

4. Guidance for Downstream User (DU) to check compliance with the Exposure scenario

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

Environment
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries html). If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

General For further information see www.atiel.org/reach/introduction