



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 30459

FLUIDE LDS

Date of the previous version: 2017-02-28

Revision Date: 2017-11-06

Version 5.01

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

1.1. Product identifier

Product name	FLUIDE LDS
Number	0VO
Substance/mixture	Mixture***

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

Identified uses	Transmission fluid.
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1.3. Details of the supplier of the safety data sheet

Supplier	<p>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</p> <p>B - TOTAL LUBRIFIANTS 562 Avenue du Parc de L'île 92029 Nanterre Cedex FRANCE Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71</p>
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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

Version EUUK



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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

Aspiration toxicity - Category 1 - (H304)

Acute inhalation toxicity - dust/mist - Category 4 - (H332)

2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008

Contains Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene, Distillates (petroleum), hydrotreated middle



Signal word
DANGER

Hazard Statements

H304 - May be fatal if swallowed and enters airways

H332 - Harmful if inhaled***

Precautionary statements

P101 - If medical advice is needed, have product container or label at hand

P102 - Keep out of reach of children

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTRE/doctor

P271 - Use only outdoors or in a well-ventilated area

P331 - Do NOT induce vomiting***

EUH208 - Contains Alkoxyated long chain alkylamine, Methyl methacrylate 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.***

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

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Chemical nature The product is made from refined mineral base oils and synthetic oils.***

Hazardous components

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	Classification (Reg. 1272/2008)
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	-	01-2119411393-49	^	80-<90	Asp. Tox. 1 (H304) Acute Tox. 4 (H332)
Distillates (petroleum), hydrotreated middle	265-148-2***	no data available	64742-46-7	5-<10	Asp. Tox. 1 (H304)
Alkoxylated long chain alkylamine	-	no data available	^	0.1-<1	Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H302) Aquatic Chronic 3 (H412) ***
Methyl methacrylate	201-297-1***	no data available	80-62-6	0.1-<1	STOT SE 3 (H335) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Flam Flam. Liq. 2 (H225)

Additional information The product is made from synthetic base oils (Polyalphaolefins).

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. High pressure jets may cause skin damage. 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 Not classified.



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Skin contact	Not classified. 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 by inhalation. Inhalation of vapours in high concentration may cause irritation of respiratory system.
Ingestion	<p>May be fatal if swallowed and enters airways. If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.</p> <p>Harmful: If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).***</p>

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 (CO₂). 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. Phosphorous oxides. Nitrogen oxides (NO_x). Mercaptans. Silicon dioxide.***

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



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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. See Section 12 for additional Ecological Information.***

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)

No information available.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

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8.1. Control parametres

Exposure limits

Components with workplace control parametres

Chemical Name	European Union	The United Kingdom	Ireland
Methyl methacrylate 80-62-6	STEL 100 ppm TWA 50 ppm***	STEL 100 ppm STEL 416 mg/m ³ TWA 50 ppm TWA 208 mg/m ³ ***	TWA 50 ppm STEL 100 ppm***

Legend

See section 16

DNEL Worker (Industrial/Professional)

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene ^	22.9 mg/m ³ (inhalation)***	3.9 mg/m ³ (inhalation)		
Distillates (petroleum), hydrotreated middle 64742-46-7	5000 mg/m ³ /15 min (aerosol - inhalation)		2.9 mg/kg bw/8h (dermal) 16 mg/m ³ /8h (aerosol - inhalation)	
Methyl methacrylate 80-62-6		1.5 mg/cm ² Dermal	208 mg/m ³ Inhalation 13.67 mg/kg Dermal	208 mg/m ³ Inhalation 1.5 mg/cm ² Dermal

DNEL Consumer

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene ^	16.8 mg/m ³ (inhalation)	3.9 mg/m ³ (inhalation)***		3.9 mg/m ³ (inhalation)
Distillates (petroleum), hydrotreated middle 64742-46-7	3000 mg/m ³ /15min (aerosol - inhalation)		1.3 mg/kg bw/8h (dermal) 4.8 mg/m ³ /8h (aerosol - inhalation)	
Methyl methacrylate 80-62-6		1.5 mg/cm ² Dermal	74.3 mg/m ³ Inhalation 8.2 mg/kg Dermal	104 mg/m ³ Inhalation 1.5 mg/cm ² Dermal

Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Methyl methacrylate 80-62-6	0.94 mg/l fw 0.94 mg/l mw 0.94 mg/l or	5.74 mg/kg dw fw	1.47 mg/kg dw		10 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



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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

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P2. 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.***

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Extended and repeated contacts with skin can cause skin ailments which may be aggravated by minor injuries or contact with soiled clothing.***

Hand protection

Hydrocarbon-proof gloves. Neoprene gloves. 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.***

Environmental exposure controls

General Information

Do not allow material to contaminate ground water system.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance		Clear	
Colour		orange	
Physical state @20°C		liquid	
Odour		characteristic	
Odour Threshold		No information available	
Property	Values	Remarks	Method
pH		Not applicable	
Melting point/range		No information available	
Boiling point/boiling range		No information available	
Flash point	> 150 °C > 302 °F		ASTM D 93 ASTM D 93
Evaporation rate		No information available	



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Flammability Limits in Air

Upper		No information available	
Lower		No information available	
Vapour pressure		No information available	
Vapour density		No information available	
Relative density	0.817 - 0.827	@ 15 °C	ISO 12185
Density	817 - 827 kg/m ³	@ 15 °C	ISO 12185
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available***	
Autoignition temperature	> 250 °C > 482 °F		ASTM E 659 ASTM E 659
Decomposition temperature		No information available	
Viscosity, kinematic	17 - 19 mm ² /s 5.75 - 6.15 mm ² /s	@ 40 °C @ 100 °C	ISO 3104 ISO 3104
Explosive properties	Not explosive		
Oxidising properties	Not applicable		
Possibility of hazardous reactions	No information available		

9.2. Other information

Freezing point		No information available
Pour point	-50 °C	ISO 3016

Section 10: STABILITY AND REACTIVITY10.1. 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

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carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Phosphorous oxides. Nitrogen oxides (NOx). Mercaptans. Combustion products include sulphur oxides (SO₂ and SO₃) and Hydrogen sulphide H₂S. Silicon dioxide.***

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity Local effects Product Information

Skin contact . Not classified. 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 . Not classified.

Inhalation . Harmful by inhalation. Inhalation of vapours in high concentration may cause irritation of respiratory system.

Ingestion . May be fatal if swallowed and enters airways. If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Harmful: If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).***

ATEmix (oral) 5,779.00 mg/kg

ATEmix (dermal) 5,293.00 mg/kg

ATEmix (inhalation-dust/mist) 1.70 mg/l

ATEmix (inhalation-vapour) 71.10 mg/l

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	LD50 >5000 mg/kg bw (rat-OECD 401)	LD50 >2000 mg/kg bw (rat-OECD 402)	LC50 (4h) 1170 mg/m ³ (aerosol rat-OECD 403) LC50 (4h) 1400 - 2000 mg/m ³ (aerosol rat-OECD 403) LC50 (4h) 900 - 1400 mg/m ³ (aerosol rat-OECD 403)
Distillates (petroleum), hydrotreated middle	> 5000 mg/kg bw (Rat - OECD TG 401)	> 2000 mg/kg bw 24h (Rabbit - OECD TG 402)	= 4.6 mg/l aerosol (4h- rat) OECD TG 403
Alkoxyated long chain alkylamine	LD50 1350 mg/kg (Rat)		LC50 (1h) 220 ppm (Rat - Vapor)
Methyl methacrylate	LD50 > 5000 mg/kg (Rat)	LD50 > 5000 mg/kg (Rabbit)	LD50(4h) 29.8 mg/kg (Rat - Vapour)

Sensitisation

Sensitisation Not classified as a sensitizer. Contains sensitizer(s). May produce an allergic reaction.

Specific effects



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Carcinogenicity This product is not classified carcinogenic.
Mutagenicity This product is not classified as mutagenic.
Reproductive toxicity This product does not present any known or suspected reproductive hazards.

Repeated dose toxicity

Subchronic Toxicity No information available.

Target Organ Effects (STOT)**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**

Not classified.

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
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene ^	EL50 (72h) > 1000 mg/l (Selenastrum capricornutum)	LL50 (96h) > 5056 mg/l (Americamysis bahia) EL50 (48h) > 1000 mg/l (Daphnia magna)	EL50 (96h) > 1000 mg/l (Pseudokirchneriella subcapitata) LL50 (96h) > 1000 mg/l (Oncorhynchus mykiss) LL50 (96h) > 5003 mg/l (Cyprinodon variegatus - OECD 203)	
Distillates (petroleum), hydrotreated middle 64742-46-7	ErL50 (72h) = 22 mg/l (OECD TG 201)	EL50 (48h) = 68 mg/l (OECD TG 202)	LL50 (96h) = 21 mg/l (OECD TG 203)	
Methyl methacrylate 80-62-6	EC50 (72h) > 110 mg/l (Selenastrum capricornutum)	EC50 (48h) = 69 mg/L Daphnia magna	LC50 (96h) > 79 mg/l (Oncorhynchus mykiss)	

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
Hydrogenated dimerization products of 1-decene,		EL50 (21d) > 1000 mg/l (Daphnia magna - OECD	NOEL (96h) > 5003 mg/l (Cyprinodon variegatus -	



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1-dodecene and 1-octene ^		211) LL50 (21d) > 1000 mg/l (Daphnia magna - OECD 211) NOEL (21d) 1000 mg/l (Daphnia magna - OECD 211) NOELR (21d) > 1000 mg/l (Daphnia magna)	OECD 203)	
Distillates (petroleum), hydrotreated middle 64742-46-7		NOEL (21d) = 0.163 mg/l (QSAR modelled data)	NOEL (14d) = 0.069 mg/l (QSAR modelled data)	

Effects on terrestrial organisms

No information available.***

12.2. Persistence and Degradability**General Information**

No information available.

12.3. Bioaccumulative potential**Product Information**

No information available.***

logPow

No information available.***

Component Information

No information available.***

Chemical Name	log Pow
Methyl methacrylate - 80-62-6	1.38

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. The product is insoluble and sinks in 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 CONSIDERATIONS13.1. Waste treatment methods



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Waste from residues / unused products	Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. 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. If recycling is not practicable, dispose of in compliance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.***
EWC Waste Disposal No	The following Waste Codes are only suggestions: 13 02 06. 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.

Section 14: TRANSPORT INFORMATION

<u>ADR/RID</u>	not regulated
<u>IMDG/IMO</u>	not regulated
<u>ICAO/IATA</u>	not regulated
<u>ADN</u>	not regulated

Section 15: REGULATORY INFORMATION

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

European Union

Further information

No information available

15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

15.3. National regulatory information

The United Kingdom

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



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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

H225 - Highly flammable liquid and vapour
 H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H314 - Causes severe skin burns and eye damage
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 H351 - Suspected of causing cancer if inhaled
 H400 - Very toxic to aquatic life
 H410 - Very 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
 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

TWA: Time Weight Average
 STEL: Short Time Exposure Limit

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



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Revision Note *** Indicates updated section. &. 1.***

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-31686

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

No exposure scenario required

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 operation 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
Not applicable	

3. Exposure estimation and references

Health

The risk Management Measures/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-31686

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 vehicles 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

Not applicable

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 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
Not applicable	

3. Exposure estimation and references

Health

The risk Management Measures/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-31686

1. Exposure scenario

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

Use Descriptor

Sector of use

Professional

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 vehicles 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

Not applicable

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
Not applicable	

3. Exposure estimation and references

Health

The risk Management Measures/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