SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758

OXLUBE L7-NPG
11990A

Version / Revision	2.01	**Revision Date**	25-Jan-2023
Supersedes Version	2.00***	**Issuing date**	25-Jan-2023

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

1.1. Product identifier

Identification of the substance/preparation **OXLUBE L7-NPG**

Chemical Name Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol
CAS-No 68855-18-5
EC No. 272-469-1

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

Identified uses Lubricant
Uses advised against None

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification
OQ Chemicals GmbH
Rheinpromenade 4A
D-40789 Monheim
Germany

Product Information
Product Stewardship
FAX: +49 (0)208 693 2053
email: sc.psq@oq.com

1.4. Emergency telephone number

Emergency telephone number +44 (0) 1235 239 670 (UK)
available 24/7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Based on present data no classification and labelling is required according to Directive 1272/2008/EC and its amendments (CLP Regulation)

2.2. Label elements

Not required.

2.3. Other hazards

If the material is misted or if vapours are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract

PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating nor toxic

(PBT), nor very persistent nor very bioaccumulating (vPvB)

Endocrine disrupting assessments

The substance is not listed on the candidate list according to Art. 59(1), REACh. The substance was not assessed as having endocrine disrupting properties according to regulation 2017/2100/EU or 2018/605/EU.

SECTION 3: Composition / information on ingredients

3.1. Substances

Component	CAS-No	1272/2008/EC	Concentration (%)
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol	68855-18-5	-	> 98

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Keep at rest. Aerate with fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Skin
Wash off immediately with soap and plenty of water. When symptoms persist or in all cases of doubt seek medical advice.

Eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Ingestion
Call a physician immediately. Do not induce vomiting without medical advice.

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

Main symptoms
None known.

Special hazard
Prolonged skin contact may defat the skin and produce dermatitis.

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

General advice
Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
foam, dry chemical, carbon dioxide (CO2), water spray

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

Under conditions giving incomplete combustion, hazardous gases produced may consist of:
carbon monoxide (CO)
carbon dioxide (CO2)
Combustion gases of organic materials must in principle be graded as inhalation poisons
Vapours are heavier than air and may spread along floors

5.3. Advice for firefighters

Special protective equipment for firefighters
Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

Precautions for firefighting
Cool containers / tanks with water spray. Dike and collect water used to fight fire. Keep people away from and upwind of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.
For emergency responders: Personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).

6.3. Methods and material for containment and cleaning up

Methods for containment
Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

Methods for cleaning up
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

6.4. Reference to other sections

For personal protective equipment see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures
When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Advice on the protection of the environment
See Section 8: Environmental exposure controls.

Incompatible products
strong acids
strong bases
oxidizing agents

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material.

Technical measures/Storage conditions
Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care.

Temperature class
T2

7.3. Specific end use(s)

Lubricant

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Exposure limits European Union

No exposure limits established

Exposure limits UK

No exposure limits established.

DNEL & PNEC

Not required.

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
Workers

DN(M)EL - long-term exposure - systemic effects - Inhalation	No hazard identified
DN(M)EL - acute / short-term exposure - systemic effects - Inhalation	No hazard identified
DN(M)EL - long-term exposure - local effects - Inhalation	No hazard identified
DN(M)EL - acute / short-term exposure - local effects - Inhalation	No hazard identified
DN(M)EL - long-term exposure - systemic effects - Dermal	No hazard identified

DN(M)EL - acute / short-term exposure - systemic effects - Dermal	No hazard identified
DN(M)EL - long-term exposure - local effects - Dermal	No hazard identified
DN(M)EL - acute / short-term exposure - local effects - Dermal	No hazard identified
DN(M)EL - local effects - eyes	No hazard identified

General population

DN(M)EL - long-term exposure - systemic effects - Inhalation	No hazard identified
DN(M)EL - acute / short-term exposure - systemic effects - Inhalation	No hazard identified
DN(M)EL - long-term exposure - local effects - Inhalation	No hazard identified
DN(M)EL - acute / short-term exposure - systemic effects - Dermal	No hazard identified
DN(M)EL - long-term exposure - local effects - Dermal	No hazard identified
DN(M)EL - acute / short-term exposure - local effects - Dermal	No hazard identified
DN(M)EL - long-term exposure - systemic effects - Oral	No hazard identified
DN(M)EL - acute / short-term exposure - systemic effects - Oral	No hazard identified
DN(M)EL - local effects - eyes	No hazard identified

Environment

PNEC aqua - freshwater	No hazard identified
PNEC aqua - marine water	No hazard identified
PNEC aqua - intermittent releases	No hazard identified
PNEC STP	No hazard identified
PNEC sediment - freshwater	No hazard identified
PNEC sediment - marine water	No hazard identified
PNEC Air	No hazard identified
PNEC soil	No hazard identified
Secondary poisoning	No potential for bioaccumulation

8.2. Exposure controls

Special adaptations (REACh)
Not applicable.

Appropriate Engineering controls
General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Personal protective equipment

General industrial hygiene practice
Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures
When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Eye protection
Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.
Equipment should conform to EN 166

Hand protection
Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

Suitable material	Neoprene
Suitable material	nitrile rubber

Skin and body protection
Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

Respiratory protection
Respirator with organic filter. Full mask with above mentioned filter according to producers using requirements or self-contained breathing apparatus. Equipment should conform to EN 136 or EN 140 and EN 143.

Environmental exposure controls
If possible use in closed systems. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. Observe the exposure limits, clean exhaust air if needed. If recycling is not practicable, dispose of in compliance with local regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

Additional advice
Further details on substance data can be found in the registration dossier under the following link: http://echa.europa.eu/information-on-chemicals/registered-substances.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	No data available
Odour threshold	No data available
Melting point/freezing point	-87 °C (Pour point)
Method	ASTM D 97-02
Boiling point or initial boiling point and boiling range	No data available
Flammability	Even if not classified as flammable, the product is capable of catching fire or being set on fire.***
Lower explosion limit	No data available
Upper explosion limit	No data available
Flash point	191 °C
Method	closed cup, ISO 2719
Autoignition temperature	355 °C
Method	DIN 51794
Decomposition temperature	No data available
pH	No data available
Kinematic Viscosity	10 mm²/s @ 20 °C
Method	ASTM D7042
Solubility	< 0,05 mg/l @ 20 °C, in water, EU A.6
Partition coefficient n-octanol/water (log value)	6,68 (calculated) KOW WIN
Vapour pressure	

Values [hPa]	Values [kPa]	Values [atm]	@ °C	@ °F	Method

<0,01	<0,001	<0,0001	20	68	QSAR

Density and/or relative density

Values	@ °C	@ °F	Method
0,92	20	68	EU A.3

Relative vapour density No data available
Particle characteristics not applicable

9.2. Other information

Explosive properties Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties
Oxidizing properties Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties
Molecular weight 328,4924
Molecular formula C19 H36 O4
log Koc 3,69 - 4,49 @ 25°C (77 °F) calculated
Evaporation rate No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity

The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

10.5. Incompatible materials

strong acids, strong bases, oxidizing agents.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Likely routes of exposure Ingestion, Inhalation, Eye contact, Skin contact

Acute toxicity				
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)				
Routes of Exposure	Endpoint	Values	Species	Method

Oral	LD50	>2000 mg/kg	rat, male/female	OECD 401
Inhalative	LC50	>5,22 mg/l (4h)	rat, male/female	OECD 436

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
Assessment
Based on available data, the classification criteria are not met for:
Acute oral toxicity
Acute inhalation toxicity
For acute dermal toxicity, no data are available

Irritation and corrosion				
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)				
Target Organ Effects	Species	Result	Method	
Skin	rabbit	not irritating	OECD 404	4h
Eyes	rabbit	Mild eye irritation	OECD 405	

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
Assessment
Based on available data, the classification criteria are not met for:
skin irritation/corrosion
eye irritation/corrosion
If the material is misted or if vapours are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract

Sensitization				
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)				
Target Organ Effects	Species	Evaluation	Method	
Skin	guinea pig	not sensitizing	OECD 406	

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
Assessment
Based on available data, the classification criteria are not met for:
Skin sensitization
For respiratory sensitization, no data are available

Subacute, subchronic and prolonged toxicity				
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)				
Type	Dose	Species	Method	
Subacute toxicity	NOAEL: >=1450 mg/kg/d (28d)	rat, male	OECD 407 Oral	read across
Subchronic toxicity	NOAEL: >=1000 mg/kg/d (90d)	rat, male/female	OECD 408 Oral	read across
Subchronic toxicity	NOAEC: 0,5 mg/l/d (13 weeks)	rat, male/female	OECD 413 Inhalation	read across
Subchronic toxicity	NOAEL: >=2000 mg/kg/d (13 weeks)	rat, male/female	OECD 411 Dermal	read across

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
Assessment
Based on available data, the classification criteria are not met for:
STOT RE

Carcinogenicity, Mutagenicity, Reproductive toxicity
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)

Type	Dose	Species	Evaluation	Method	
Mutagenicity		Salmonella typhimurium	negative	OECD 471 (Ames)	read across
Mutagenicity		human lymphocytes	negative	OECD 473 (Chromosomal Aberration)	
Mutagenicity		mouse lymphoma cells	negative	OECD 476 (Mammalian Gene Mutation)	
Developmental Toxicity	NOAEL 2000 mg/kg/d			OECD 414, Dermal	read across systemic effects Maternal toxicity
Developmental Toxicity	NOAEL 200 mg/kg/d			OECD 414, Dermal	read across Local effects Maternal toxicity

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
CMR Classification
The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B
Evaluation
In vitro tests did not show mutagenic effects

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
Target Organ Systemic Toxicant - Single exposure
Based on available data, the classification criteria are not met for:
STOT SE
Target Organ Systemic Toxicant - Repeated exposure
Based on available data, the classification criteria are not met for:
STOT RE
Aspiration toxicity
no data available

11.2. Information on other hazards

Endocrine disrupting properties
The substance has not been identified as having endocrine disrupting properties in accordance with section 2.3.
Note
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity			
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)			
Species	Exposure time	Dose	Method
Oncorhynchus mykiss (rainbow trout)	96h	LC50: >0,086 mg/l	OECD 203
Pseudokirchneriella subcapitata	72h	EC50: >0,0065 mg/l (Growth rate)	OECD 201
Activated sludge (domestic)	3 h	NOEC: >=1000 mg/l	OECD 209

Long term toxicity

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)				
Type	Species	Dose	Method	
Reproductive toxicity	Daphnia magna (Water flea)	NOEC: ≥ 0,0019 mg/l	OECD 211	
Aquatic toxicity	Pseudokirchneriella subcapitata	NOEC: ≥ 0,0065 mg/l Growth rate	OECD 201	

Terrestrial toxicity				
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)				
Species	Exposure time	Dose	Type	Method
Eisenia fetida	14 d	NOEC: ≥ 1000 mg/kg soil dw	Reproduction	OECD 207
Eisenia fetida	56 d	NOEC: ≥ 1000 mg/kg soil dw	Reproduction	read across OECD 222

12.2. Persistence and degradability

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
Biodegradation
89,3 % (28 d), activated sludge (domestic), aerobic, OECD 301 B.

Abiotic Degradation		
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)		
Type	Result	Method
Hydrolysis	5,3 yr@25 °C, pH 7	calculated
Photolysis	Half-life (DT50): 24,32 h	calculated

12.3. Bioaccumulative potential

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)		
Type	Result	Method
BCF	33,76 - 500	QSAR
log Pow	6,68	calculated

12.4. Mobility in soil

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol (68855-18-5)		
Type	Result	Method
Adsorption/Desorption	Koc: 4929 - 30820	calculated
Surface tension	not applicable	
Distribution to environmental compartments	no data available	

12.5. Results of PBT and vPvB assessment

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

12.6. Endocrine disrupting properties

The substance has not been identified as having endocrine disrupting properties in accordance with section 2.3.

12.7. Other adverse effects

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product Information
Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.
Uncleaned empty packaging
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

Section 14.1 - 14.6

ADR/RID	Not restricted
ADN	Not restricted
ICAO-TI / IATA-DGR	Not restricted
IMDG	Not restricted
14.7. Maritime transport in bulk according to IMO instruments	not applicable

SECTION 15: Regulatory information

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

Regulation 1272/2008, Annex VI
not listed

DI 2012/18/EU (Seveso III)
Category not subject

DI 1999/13/EC (VOC Guideline)

Component	Status
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol CAS: 68855-18-5	not subject

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 No. 758

Component	Status
Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol CAS: 68855-18-5	The substance will not be pre-registered

For details and further information please refer to the original regulation.

International Inventories

Heptanoic acid, ester with 2,2-dimethyl-1,3-propanediol, CAS: 68855-18-5
AICS (AU)
NDSL (CA)
IECSC (CN)
EC-No. 272-469-1 (EU)
KECI 2001-3-1721 (KR)
PICCS (PH)
TSCA (US)
TCSI (TW)

National regulatory information Great Britain

Releases to air (Pollution Inventory Substances)
not subject

Releases to water (Pollution Inventory Substances)
not subject

Releases to sewer (Pollution Inventory Substances)
not subject
For details and further information please refer to the original regulation

15.2. Chemical safety assessment

The Chemical Safety Report (CSR) is not required.

SECTION 16: Other information

Abbreviations
A table of terms and abbreviations can be found under the following link:
http://echa.europa.eu/documents/10162/13632/information_requirements_r20_en.pdf

Training advice
For effective first-aid, special training / education is needed.

Sources of key data used to compile the datasheet
Information contained in this safety data sheet is based on OQ owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC

indicates, that no data meeting these requirements is available.

Further information for the safety data sheet
Changes against the previous version are marked by ***. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the OQ homepage (www.chemicals.oq.com).
The annex is not required because the substance is not classified for human health or the environment, is not a CMR and is not PBT or vPvB

Disclaimer
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End of Safety Data Sheet