



Safety Data Sheet

SDS has been prepared in accordance with Regulation (EC) No. 453/2010

This Safety Data Sheet is written in reference to a sealed glass ampoule containing 10ml of the product named below.

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Substance name: Lube oils (including products: Lube 8, Lube 32, Lube 100, Lube 460)

Synonyms: Lubricating oil, base oil	Product type: Liquid density standard	Date revised: Apr 2024 Previous: Jun 2022
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1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: For use in the calibration of density meters.

1.3 Details of the supplier of the Safety Data Sheet

Company: H&D Fitzgerald Ltd.
Address: Cefn Du, Tremeirchion, St Asaph, Denbighshire, LL17 0US, UK
Telephone #: +44 (0)1352 720 774
Email address: admin@density.co.uk

1.4 Emergency telephone number

+44 (0)1352 720 774

Section 2 Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No1272/2008 [CLP]:

Not classified.

2.2 Label elements None.

2.3 Other hazards No data available.

Section 3 Composition / Information on ingredients

Product name	C.A.S. No.	EINECS No.	Classification	Composition
Lube 8	92062-35-6	295-550-3	Not classified	White mineral oil (petroleum), light
Lube 32	8042-47-5	232-455-8	Not classified	White mineral oil (petroleum)
Lube 100	8042-47-5	232-455-8	Not classified	White mineral oil (petroleum)
Lube 460	8042-47-5	232-455-8	Not classified	White mineral oil (petroleum)

For full text of H-statements mentioned in this section, see Section 16.

These products do not contain any hazardous ingredients at or above regulated thresholds.

Section 4 First Aid measures

4.1 Description of first aid measures

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance. Treatment should in general be symptomatic and directed to relieving any effects.
Following inhalation:	Move the person into fresh air. If not breathing give artificial respiration. Consult a physician if symptoms develop.
Following ingestion:	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth with water and consult a physician without delay.
Following eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.
Following skin contact:	Wash off with soap and plenty of water. Remove contaminated clothing. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

General information:	If aspiration into the lungs is suspected, eg when vomiting, admit to hospital immediately.
Inhalation:	Upper respiratory irritation.
Ingestion:	May cause discomfort if swallowed. The product contains mineral oil, which if aspirated into the lungs through vomiting after ingestion, may result in chemical pneumonia.
Skin contact:	Prolonged contact may cause redness, irritation and dry skin.
Eye contact:	Irritation of eyes and mucous membranes.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

Section 5 Fire fighting measures

5.1 Extinguishing media

Extinguishing media:	Use foam, dry chemical, carbon dioxide, or water fog.
Unsuitable media:	Water jet - this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:	Decomposition products may include toxic gases: CO, CO ₂ , NO _x . Fire may also create other unidentified organic gases some of which may be toxic.
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5.3 Advice for firefighters

Special protective equipment for fire-fighters:	Wear protective clothing and self contained breathing apparatus.
Special procedures:	Keep run-off water out of sewers and water sources.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Protective equipment:	Wear safety glasses with side shields and gloves. See section 8.
Personal precautions:	Use personal protective equipment. In case of spills, beware of slippery floors and surfaces.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.
Do not let product enter drains, sewers, or watercourses. Discharge into the environment must be avoided. The product is insoluble in water and will spread on the water surface.

6.3 Methods and material for containment and cleaning up

Soak up liquid with inert absorbent material and dispose of in a suitable waste disposal container. Avoid discharge to environment.

Section 7 Handling and storage

7.1 Precautions for safe handling

Handling precautions:

Avoid inhalation of vapour or mist. Use personal protective equipment.
Avoid spilling, skin and eye contact. Always remove oil with soap and water or skin cleaning agent, never use organic solvents.
Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.
Handle in accordance with good industrial hygiene and safety practise.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions:

Store ampoule in the outer packaging until ready to use.
Store in a cool place (less than 25°C). Prolonged heat exposure is not suitable. Do not store the ampoule once opened.

7.3 Specific end use

Recommendations:

Liquid density standard for calibration of density meters.

Section 8 Exposure controls and personal protection

8.1 Control parameters

Components with work place control parameters

Components	CAS-No.	Value	Control Parameters	Update	Basis
Base oil – unspecified		STEL	10 mg/m ³ - 15 minutes	2005-04-06	UK. EH40 Occupational Exposure Limits
		TWA	5 mg/m ³ - 8 hours	2005-04-06	UK. EH40 Occupational Exposure Limits

8.2 Exposure controls

Personal protective equipment

Eye/Face protection:

Wear safety glasses with side shields conforming to EN166

Hand protection:

Handle with gloves conforming to EN374 if prolonged or repeated contact is likely.

Other skin protection:

Use of protective clothing is good industrial practise.

Respiratory protection:

Use in a well ventilated area.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practise.
Wash hands with soap before breaks and at the end of the workday.

Environmental exposure controls

Do not let product enter drains, sewers, or watercourses. Discharge into the environment must be avoided.

Keep in suitable, closed containers for disposal. Dispose of as hazardous waste.

Section 9 Physical and chemical properties			
9.1 Information on basic physical and chemical properties			
Lube 8			
Appearance: Light (or pale) Yellow, liquid	Odour: oily, petroleum	Odour threshold: no data available	pH: no data available
Pour point: no data available	Boiling point & range: no data available	Flash point: no data available	Evaporation rate: no data available
Flammability: no data available	Upper/lower flammability or explosive limits: not applicable	Vapour pressure: no data available	Vapour density: no data available
Density of liquid: ~824 kgm ⁻³ @ 20°C	Solubility: Insoluble in water Soluble in organic solvents	Partition coefficient: n-octanol/water log Pow: >>3.5 (typical value)	Auto-ignition temperature: no data available
Decomposition temperature: no data available	Viscosity: ~8 mPa·s @ 40°C	Explosive properties: not applicable	Oxidising properties: no data available
Lube 32			
Appearance: Amber, liquid	Odour: oily, petroleum	Odour threshold: no data available	pH: no data available
Pour point: <-9°C	Boiling point & range: >316°C @ 760 mm Hg	Flash point: >180°C – closed cup	Evaporation rate: no data available
Flammability: lower limit: 0.9% upper limit: 7.0%	Upper/lower flammability or explosive limits: not applicable	Vapour pressure: <0.013 kPa @ 20°C	Vapour density: >2 @ 101 kPa (air = 1)
Density of liquid: ~867 kgm ⁻³ @ 20°C	Solubility: Insoluble in water Soluble in organic solvents	Partition coefficient: n-octanol/water log Pow: >>3.5 (typical value)	Auto-ignition temperature: no data available
Decomposition temperature: >280°C	Viscosity: ~32 mPa·s @ 40°C	Explosive properties: not applicable	Oxidising properties: no data available
Lube 100			
Appearance: Brown, liquid	Odour: oily, petroleum	Odour threshold: no data available	pH: no data available
Melting point: <-6°C	Boiling point & range: >316°C	Flash point: >240°C Cd OC (Cleveland open cup)	Evaporation rate: no data available
Flammability: lower limit: 0.9% upper limit: 7.0%	Upper/lower flammability or explosive limits: not applicable	Vapour pressure: <0.013 kPa @ 20°C	Vapour density: > 2 @ 101kPa (air = 1)
Density of liquid: ~878 kgm ⁻³ @ 20 °C	Solubility: Insoluble in water Soluble in organic solvents	Partition coefficient: n-octanol/water log Pow: >>3.5 (typical value)	Auto-ignition temperature: no data available

Decomposition temperature: no data available	Viscosity: ~100 mPa·s @ 40 °C	Explosive properties: not applicable	Oxidising properties: no data available
Lube 460			
Appearance: Brown, liquid	Odour: Barely perceptible	Odour threshold: no data available	pH: no data available
Melting point: no data available	Boiling point & range: >35°C	Flash point: >200°C	Evaporation rate: no data available
Flammability: no data available	Upper/lower flammability or explosive limits: not applicable	Vapour pressure: no data available	Vapour density: no data available
Density of liquid: ~898 kgm ⁻³ @ 20 °C	Solubility: Insoluble in water Soluble in organic solvents	Partition coefficient: n-octanol/water no data available	Auto-ignition temperature: no data available
Decomposition temperature: no data available	Viscosity: ~460mPa·s @ 40 °C	Explosive properties: not applicable	Oxidising properties: no data available
9.2 Other information	<p>Stable under normal temperature conditions and recommended use. Avoid heat, flames and other sources of ignition. Avoid strong oxidising substances. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Not considered volatile. Vapours may be emitted on excessive heating. The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOC's may be present.</p>		

Section 10 Stability and reactivity	
10.1 Reactivity	No specific reactivity hazards associated with this product.
10.2 Chemical stability	Stable under recommended storage conditions and conditions of use.
10.3 Possibility of hazardous reactions	Unlikely to occur under normal conditions of use.
10.4 Conditions to avoid	Avoid heat, flames and other sources of ignition.
10.5 Incompatible materials	Strong oxidising substances.
10.6 Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Section 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity and Potential health effects

Based upon available data for similar products and components this product is expected to show a low order of toxicity. Only large volumes may have adverse impact on human health.

Inhalation:

At normal ambient temperatures this product will be unlikely to present an inhalation hazard due to its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

Ingestion:

No harmful effects expected in amounts likely to be ingested by accident.

Skin corrosion/irritation:

May cause mild skin irritation. Skin irritation is not anticipated when used normally. Repeated exposure may cause dermatitis. Symptoms may include redness, edema, drying, and cracking skin.

Serious eye damage/irritation:

May cause mild, short lasting discomfort/irritation to eyes.

Germ cell mutagenicity:

No data available.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity:

No data available.

Specific target organ toxicity – single exposure:

No data available.

Specific target organ toxicity – repeated exposure:

Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

Aspiration hazard:

The product contains mineral oil. If aspirated into the lungs e.g. through vomiting after ingestion admit to hospital immediately.

Sensitisation:

No data available.

Additional information:

None.

Section 12 Ecological information

Lube oils are unlikely to present any ecological risk in the quantity supplied in a 10 ml ampoule.

12.1 Toxicity

Not expected to be harmful to aquatic systems.
Not considered toxic to fish.

12.2 Persistence and degradability

The product is not considered readily biodegradable, albeit the major constituents are expected to ultimately biodegrade.

The product contains mineral oil which has limited biodegradability in CEC test methods but will biodegrade slowly in aerobic water and sediments and is considered ultimately biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation:

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.
log Pow >>3.5 (this figure is typical of mineral oil)

12.4 Mobility in soil

The product is non-volatile.
The product is insoluble in water and will spread on the water surface.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.
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Section 13 Disposal considerations	
General requirements:	Observe all national and local environmental regulations.
For small quantities:	Soak up liquid with inert absorbent material and dispose of in a suitable waste disposal container. Avoid dispersal of spilt material and run-off contact with soil, waterways, drains, and sewers.
Contaminated packaging:	Dispose of safely in accordance with local authority requirements.

Section 14 Transport information
Not classified as hazardous for transport.

Section 15 Regulatory information
15.1 Safety health and environmental regulations/legislation specific for the substance or mixture This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010.
15.2 Chemical safety assessment No chemical assessment has been carried out for this substance by the supplier.
Inventories
Canada - DSL/NDSL All the ingredients are listed or exempt.
US - TSCA All the ingredients are listed or exempt.
Australia - AICS All the ingredients are listed or exempt.
Korea - KECI All the ingredients are listed or exempt.
China - IECSC All the ingredients are listed or exempt.
Philippines – PICCS All the ingredients are listed or exempt.
New Zealand - NZIOC All the ingredients are listed or exempt.

Section 16 Other information	
Reason for revision:	Biennial review.
Disclaimer	H&D Fitzgerald Ltd believes that data given here is accurate. It is derived from published information about lube oils. No warranty, expressed or implied, is intended. The data is provided for your information and consideration when using lube oil as a liquid density standard for the calibration of density meters. H&D Fitzgerald Ltd assumes no legal responsibility for its use.