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

1.1 Product identifier

Trade name: LEYBONOL LVO 110
Product description: Hydrocracked mineral oil with additives

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

Uses: Vacuum pump oil

Order number:

Number	Package Size
L11001	1 Liter
L11002	2 Liter

1.3 Details of the supplier of the safety data sheet

Supplier: Leybold GmbH
Bonner Str. 498
D-50968 Cologne
Phone +49-221-347-0
Fax +49-221-347-1250
Internet www.leybold.com

E-Mail: documentation@leybold.com

1.4 Emergency telephone number

Emergency telephone number: +49/ (0)700 24112112 (OLC)

2. Hazards identification

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 not classified as dangerous according to Regulation (EC) No. 1272/2008 |

DIRECTIVE 67/548/EEC or 1999/45/EC: For the full text of the R-phrases mentioned in this Section, see Section 16
The substance/mixture is non-dangerous in accordance with Directive(s) 67/548/EEC with amendments and/or 1999/45/EC with amendments |

Symbol(s): Not classified |

2.2. Label elements

Labelled according to: REGULATION (EC) No 1272/2008 |

Hazard Statements: none |

Precautionary Statements: none |

2.3. Other hazards

Physical-Chemical Properties: Contaminated surfaces will be extremely slippery. |

Environmental properties: Should not be released into the environment.

3. Composition/ information on ingredients

3.2. Mixture

Hazardous ingredients

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Dir. 67/548)	Classification (Reg. 1272/2008)
Distillates (petroleum), hydrotreated heavy paraffinic	265-157-1	01-2119484627-25	64742-54-7	<25	-	Asp. Tox. 1 (H304)

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

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

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: Rinse thoroughly with plenty of water, also under the eyelids.

Skin contact: Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse.

Inhalation: Move to fresh air.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

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

Eye contact: Not classified.

Skin contact: Not classified.

Inhalation: Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Ingestion: Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media: Carbon dioxide (CO₂). Foam. ABC powder. 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. |

5.3. Advice 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. |

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. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained. |

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up: Dam up. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal. |

6.4. Reference to other sections

Personal Protective Equipment: See Section 8 for more detail. |

Waste treatment: See section 13. |

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling: When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. |

Prevention of fire and explosion: Take precautionary measures against static discharges. Ground/bond containers, tanks and transfer/receiving equipment. |

Hygiene measures: Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. 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 out of reach of children. Keep in a bunded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on 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. Protect from frost, heat and sunlight. Protect from moisture. |

Materials to Avoid: Strong oxidizing agents. |

7.3. Specific end uses

Specific use(s): No information available. |

8. Exposure controls/ personal protection

8.1. Control parameters

Exposure limits: Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined) |

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
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7				5.4 mg/m ³ /8h (aerosol - inhalation)

DNEL Consumer |

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7				1.2 mg/m ³ /24h (aerosol - inhalation)

8.2. Exposure controls

Occupational Exposure Controls

Engineering Measures:

Apply technical measures to comply with the occupational exposure limits. 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:

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

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/P1. 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. Long sleeved clothing. Protective shoes or boots.

Hand Protection:

Hydrocarbon-proof gloves: Nitrile rubber, Fluorinated rubber. 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. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves.

Environmental exposure controls

General Information:

Do not allow material to contaminate ground water system.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Color: colorless To light yellow
 Physical State @20°C: liquid
 Odor: Characteristic

Property	Values	Remarks	Method
pH:		Not applicable	
Boiling point/boiling range:		No information available	
Flash point:	> 200 °C > 392 °F		ASTM D 92 ASTM D 92
Evaporation rate:		No information available	
Flammability Limits in Air:		No information available	
Vapor Pressure:		No information available	
Vapor density:		No information available	
Density:	841 kg/m3	@ 15 °C	
Water solubility:		Insoluble	
Solubility in other solvents:		No information available	
logPow:		No information available	
Autoignition temperature:		No information available	

Viscosity, kinematic:	28.8 - 35.2 mm ² /s	@ 40 °C	ISO 3104
Explosive properties:	Not explosive		
Oxidizing Properties:	Not applicable		
Possibility of hazardous reactions:	Not applicable		

9.2. Other information

No information available

10. Stability and reactivity

10.1. Reactivity

General Information: No information available.

10.2. Chemical stability

Stability: Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous Reactions: None under normal processing.

10.4. Conditions to Avoid

Conditions to Avoid: Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.

10.5. Incompatible Materials

Materials to Avoid: Strong oxidizing 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.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity Local effects Product Information

Skin contact: Not classified.

Eye contact: Not classified.

Inhalation: Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Ingestion: Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
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)

Sensitization

Sensitization: Not classified as a sensitizer.

Specific effects

Carcinogenicity: This product is not classified carcinogenic. |

Chemical Name	European Union
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	-

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)

Target Organ Effects (STOT): No information available. |

Other information: Other adverse effects No information available. |

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
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)	

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 heavy paraffinic 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	

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

Chemical Name	log Pow
Distillates (petroleum), hydrotreated heavy paraffinic - 64742-54-7	-

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: Insoluble. The product spreads on the surface of the 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.

13. Disposal considerations

13.1. Waste treatment methods

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. 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 05. 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.

14. Transport information

ADR/RID: Not regulated

IMDG/IMO: Not regulated

ICAO/IATA: Not regulated

AND: Not regulated

15. Regulatory information

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

European Union

International Inventories: No information available

Further information: No information available

15.2. Chemical Safety Assessment

Chemical Safety Assessment: No information available

16. Other information

Full text of R-phrases referred to under sections 2 and 3

Not applicable

Full text of H-Statements referred to under sections 2 and 3

H304 - May be fatal if swallowed and enters airways

Abbreviations, acronyms

Legend Section 8

TWA: Time Weight Average

STEL: Short Time Exposure Limit

+ Sensitizer

** Hazard Designation

M: Mutagen

* Skin designation

C: Carcinogen

R: Toxic to reproduction

History

Date of issue: February 12, 2010

Date of revision: February 25, 2015

Version: C0

| Indicates information that has changed from previously issued version.

Notice to reader

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 information contained therein is protected by copyright and must not be reproduced or amended without the express written approval of Leybold. This document may be passed on only to the extent required by law. Any dissemination of our safety datasheets (e.g. as a document for download from the Internet) beyond this legally required extent is not permitted without express written consent.