

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: Feb 25, 2015

1. Identification of the substance/ mixture and of the company**Product identifier****Trade name:** LEYBONOL LVO 120**Product description:** Mineral oil with additives**Relevant identified uses of the substance or mixture and uses advised against****Uses:** Vacuum pump oil, Compressor oil

Order number:	Number	Package Size
	L12000	0,5 Liter
	L12001	1 Liter
	L12002	2 Liter
	L12005	5 Liter
	L12020	20 Liter

Details of the supplier of the safety data sheet

Supplier	Oerlikon Leybold Vacuum GmbH
	Bonner Str. 498
	D-50968 Cologne
	Phone +49-221-347-0
	Fax +49-221-347-1250
	Internet www.oerlikon.com/leyboldvacuum

E-Mail: documentation.vacuum@oerlikon.com**Emergency phone 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****Labeled according to:** REGULATION (EC) No 1272/2008**Hazard Statements:** none**Precautionary Statements:** none

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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****Chemical nature:** Base oil with additives.**Hazardous ingredients:** Do not contain hazardous substance nor substance with european workplace exposure limits in concentration above regulatory thresholds**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

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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.

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

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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 away from food, drink and animal feedingstuffs. Keep in a bonded 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:

Oxidizing agents. Strong acids.

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

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.

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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:

None under normal use conditions. In case of vapours and aerosol formation: Respirator with combination filter for vapour/particulate (EN 14387). 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.

Hand Protection:

Protective gloves: Fluorinated rubber, Nitrile 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. 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:

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

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: limpid
Color: yellow To amber
Physical State @20°C: liquid
Odor: Characteristic

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH:		Not applicable	
Boiling point/boiling range:		No information available	
Flash point:	232 °C 450 °F		Cleveland Open Cup (COC) Cleveland Open Cup (COC).
Evaporation rate:		No information available	
Flammability Limits in Air:		No information available	
Vapor Pressure:		No information available	
Vapor density:		No information available	
Density:	879 kg/m ³	@ 15 °C	
Water solubility:		Insoluble	
Solubility in other solvents:		No information available	
logPow :		No information available	
Autoignition temperature:		No information available	
Viscosity, kinematic:	32 mm ² /s	@ 40 °C	ISO 3104
Explosive properties:		Not explosive	
Oxidizing Properties:		Not applicable	
Possibility of hazardous reactions:		Not applicable	

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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: None under normal use. 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

Sensitization

Sensitization: Not classified as a sensitizer.

Specific effects

Carcinogenicity: This product is not classified carcinogenic.

Mutagenicity: This product is not classified as mutagenic.

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Reproductive toxicity:	This product does not contain 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:	Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).

12. Ecological information**12.1. Toxicity:** Not classified.**Acute aquatic toxicity – Product Information:** No information available.**Acute aquatic toxicity – Component Information:** No information available.**Chronic aquatic toxicity – Product Information:** No information available.**Chronic aquatic toxicity – Component Information:** No information available.**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. |**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.

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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.

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

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 |

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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:**

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Version:

A3

| Indicates information that has changed from previously issued version.

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