

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 130

Date of issue: Apr. 04, 2012

Date of revision: May 16, 2012

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

Product identifier

Trade name: LEYBONOL LVO 130

Product description: Mineral oil with additives

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

Uses: Vacuum pump oil, Air compressor oil

Order number:

Number	Package Size
L13001	1 Liter
L13002	2 Liter
L13005	5 Liter
L13020	20 Liter
L13099	208 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.

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: Not classified/No labelling required

R-phrases(s)

none

S-phrases(s)

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 Name	EC-No	REACH registration No:	CAS-No	Weight %	Classification (Dir.67/548)	Classification (Reg.1272/2008)
Zinc, bis[O,O-bis(2-ethylhexyl)phosphorodithioato-S,S']-,(T4)-	224-235-5	01-2119493635-27	4259-15-8	< 0.45	Xi;R41;R51-53	Aquatic Chronic 2 (H411) Eye Dam. 1 (H318)
2,6-di-tert-butylphenol	204-884-0	no data available	128-39-2	< 0.2	Xi;R38 N;R50-53	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315)

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.

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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). 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

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

8. Exposure controls/ personal protection

8.1. Control parameters

oil mist : 10mg/m³, for 15 minutes oil mist : 5mg/m³, for 8 hours

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.

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.

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Respiratory protection	None under normal use conditions. In case of vapours and aerosol formation.: Respirator with combination filter for vapour/particulate (EN 141). 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

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

Property	Values	Remarks	Method
pH		Not applicable	
Boiling point/boiling range		Not applicable	
Flash point	240°C 464 °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	881 kg/m ³	@ 15 °C	ISO 12185
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		Not applicable	
Viscosity, kinematic	68 mm ² /s 8.64 mm ² /s	@ 40 °C @ 100 °C	ISO 3104 ISO 3104
Explosive properties		Not explosive	
Oxidizing Properties		Not applicable	
Possibility of hazardous reactions		Not applicable	

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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

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
Zinc, bis[O,O-bis(2-ethylhexyl)phosphorodithioato-S,S']-, (T-4)-	= 3100 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	
2,6-di-tert-butylphenol	> 5000 mg/kg (Rat)	= 10000 mg/kg (Rabbit)	

Sensitization

Sensitization Not classified as a sensitizer.

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Specific effects

Carcinogenicity

This product is not classified carcinogenic.

Mutagenicity

This product is not classified as mutagenic.

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

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Zinc, bis[O,O-bis(2-ethylhexyl)phosphorodithioato-S,S']-, (T-4)- 4259-15-8	EC50 (96h) 1.0 - 5.0 mg/L Pseudokirchneriella subcapitata	EC50 (48h) 1 - 1.5 mg/L Daphnia magna	LC50 (96h) 1.0-5.0 mg/L Pimephales promelas (static) LC50 (96h) 10.0-35.0 mg/L Pimephales promelas (semi-static)	
2,6-di-tert-butylphenol 128-39-2		EC50 (48h) = 0.45 mg/L Daphnia magna		

Chronic aquatic toxicity

Product Information:

No information available.

Chronic aquatic toxicity

Component Information:

No information available.

Effects on terrestrial organisms:

No information available.

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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
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)- - 4259-15-8	3.6

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.**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.

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14. Transport information

ADR/RID	Not regulated
IMDG/IMO	Not regulated
ICAO/IATA	Not regulated
ADN	Not regulated

15. Regulatory information

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

European Union

International Inventories

EINECS/ELINCS	-
TSCA	-
DSL	-
ENCS	-
IECSC	-
KECL	-
PICCS	-
AICS	-
NZIoC	-

Legend

EINECS/ELINCS	European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
TSCA	United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL	Canadian Domestic Substances List/Non-Domestic Substances List
ENCS	Japan Existing and New Chemical Substances
IECSC	China Inventory of Existing Chemical Substances
KECL	Korean Existing and Evaluated Chemical Substances
PICCS	Philippines Inventory of Chemicals and Chemical Substances
AICS	Australian Inventory of Chemical Substances
NZIoC	New Zealand Inventory of Chemicals

Further information

15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

15.3. National regulatory information

France

- Avoid exceeding occupational exposure limits (see section 8).
- FR - Art. R. 4624-19 to 4624-20 and decree of november, 7th 1977 (Special medical surveillance).

Occupational Illnesses Applicable table(s) n°36

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16. Other information

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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

R41	Risk of serious damage to eyes	
R38	Irritating to skin	
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment	
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment	

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

H318	Causes serious eye damage	
H315	Causes skin irritation	
H400	Very toxic to aquatic life	
H410	Very toxic to aquatic life with long lasting effects	
H411	Toxic to aquatic life with long lasting effects	

Abbreviations, acronyms

Legend Section 8

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

History

Date of issue: April 04, 2012

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Version: A3

| Indicates information that has changed from previously issued version.

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.