

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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.

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: Not classified/No labeling required

R-phrases(s) none

S-phrases(s) none

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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']-, (T-4)-	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.

Ingestion

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

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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

Notes to physician

Treat symptomatically

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

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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.

7.3. Specific end uses

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

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

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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 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

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		Not applicable	
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		Not applicable	
Viscosity, kinematic	46 mm ² /s 6.75 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	

9.2. Other information

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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.

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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 imephales 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.

12.2. Persistence and degradability

General Information

No information available

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

12.3. Bioaccumulative potential**Product Information** No information available**logPow** No information available

Chemical Name	LogPow
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**14. TRANSPORT INFORMATION****ADR/RID** Not regulated**IMDG/IMO** Not regulated**ICAO/IATA** Not regulated**AND** Not regulated**15. REGULATORY INFORMATION**

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

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

European Union

International Inventories

EINECS/	-
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/NDL - 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

16. OTHER INFORMATION

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
**	Hazard Designation

SAFETY DATA SHEET

Trade name:

LEYBONOL LVO 120

Date of issue: July 28, 2009

Date of revision: May 16, 2012

M	Mutagen
*	Skin designation
C	Carcinogen
R	Toxic to reproduction

Revision Date:

2012-05-16

Revision Note

*** Indicates updated section

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

End of the safety data sheet