

Oerlikon Leybold Vacuum GmbH Bonner Str. 498 D-50968 Cologne



SAFETY DATA SHEET

Trade name:		LEYBONOL	LVO 120		sue: July 28, 2009 evision: May 06, 2011
1. Identification of the subs	stance/ mixt	ure and of the cor	npany		
Product identifier					
Trade name:		LEYBONOL LVO 120			
Product description:		Mineral oil with additives			
Relevant identified uses of	the substar	ice or mixture and	d uses advise	d against	
Uses:		Vacuum pump oil, Compressor oil		1	
Order number:		NumberPackage SizeL120000,5 LiterL120011 LiterL120022 LiterL120055 LiterL1202020 Liter			
Details of the supplier of th	e safety dat	a 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			ıum
E-Mail:		documentation.vacuum@oerlikon.com			
Emergency phone number	:	+49/ (0)700 24112112 (OLC)		I	
2. Hazards identification					
Health effects:		This product does not present a danger of intoxication.			
Environmental impact:		Do not discharge this product into the environment.			
Physico-chemical hazards:		No specific risk of fire or explosion under normal conditions of use			
3. Composition/ informatio	n on ingredi	ents			
Preparation					
Chemical nature:		Petroleum-derived severely refined mineral-base product in which the polycyclic aromatic hydrocarbons (PCA or PAH) content, measured by IP 346, is less than 3%			
Substances presenting	EC No.	CAS No.	Content	Symbol(s)	R-phrases
a health hazard Alkyl phenol			<0,25 %	Ν	R-50/53

See section 16 for explanations of R-phrases



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4. First aid measures

In case of serious or persistent conditions, call a doctor or emergency medical care.

Inhalation:	Inhalation of heavy concentrations of vapour, fumes or spray, may cause mild irritation of the throat. Transport the person into fresh air, keep warm and allow to rest.
Ingestion:	Possible risk of vomiting and diarrhoea. Do not induce vomiting to avoid the risk of aspiration into the respiratory tract. Give nothing to drink
Skin contact:	Immediately remove all soiled or stained clothing. Wash the affected area immediately and repeatedly with soap and water.
Eye contact:	Keep eyes open and rinse immediately and repeatedly with water for at least 15 minutes.
Aspiration:	If the product is believed to have entered the lungs (in case of vomiting, for example), take the person to hospital for immediate care.
5. Firefighting measures	
5. Firefighting measures Flash point:	See heading 9
	See heading 9 - suitable: Foam, carbon dioxide (CO2), powder. - not recommended: Do not use water jets (stick jets) for extinguishing fire, as this may help the spread of flames.
Flash point:	 suitable: Foam, carbon dioxide (CO2), powder. not recommended: Do not use water jets (stick jets) for extinguishing fire, as this may

Other:

6. Accidental release measures

See sections 8 and 13

Personal protection:	Ensure good ventilation.
	Remove sources of ignition. Do not smoke.

All combustion residues and contaminated water from fire-fighting

should be disposed of according to local regulations.





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fter spillage / leakage: - On land: Surfaces on which the product has been spilled slippery. Do not allow the product to enter sewers or river soil. Recover with mechanical means such as pumps - On water: Floating absorbant material, then mechanical red If the product is spilt into rivers or sewers, notify		ewers or rivers or contaminate the uch as pumps and skimmers. nechanical recovery.
Covill also muse mask a day	possible presence of surface efflue	ent.
Spill cleanup methods:	 Recovery: Contain and collect the spilled proconcerned if necessary. Contain and collect the spilled proconcerned if necessary. Contain and collect the spilled proconcerned if necessary. In the event of a major spill, inform situation cannot be brought under - Elimination: Dispose of waste in compliance with Avoid discharge of the material in a ground contamination. 	duct with sand or any other inert the relevant authorities if the control rapidly and efficiently. th regulations.
7. Handling and storage		
Handling		
Prevention of user exposure:	Ventilate extensively if the formatic aerosol is a risk. Make all the necessary arrangeme risk, notably to products in use or t Keep away from combustible subs beverages.	ents in order to reduce exposure o wastes.
	Empty containers may contain flan	amable or explosive vapours
Prevention of fire and explosion:	There is a fire hazard associated v material used to remove spills which Avoid accumulation of these: they use.	vith rags, paper or any other ch become soaked with product.
Prevention of fire and explosion: Precautions:	material used to remove spills white Avoid accumulation of these: they	with rags, paper or any other ch become soaked with product. are to be disposed off safely after a connection to earth. so as to avoid the risk of accidental
Precautions:	material used to remove spills which Avoid accumulation of these: they use. Avoid static electricity build up with Set up machinery and equipment s spills or splashes onto hot machine	with rags, paper or any other ch become soaked with product. are to be disposed off safely after a connection to earth. so as to avoid the risk of accidental
	material used to remove spills which Avoid accumulation of these: they use. Avoid static electricity build up with Set up machinery and equipment s spills or splashes onto hot machine	with rags, paper or any other ch become soaked with product. are to be disposed off safely after a connection to earth. so as to avoid the risk of accidental e parts and electrical contacts (on
Precautions: Storage	material used to remove spills which Avoid accumulation of these: they use. Avoid static electricity build up with Set up machinery and equipment s spills or splashes onto hot machine joint failure, for example). Make the necessary arrangements	with rags, paper or any other ch become soaked with product. are to be disposed off safely after a connection to earth. so as to avoid the risk of accidental e parts and electrical contacts (on a to prevent water and soil ected against contact with water source of ignition. n use

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Packaging materials:	 Recommended: Use only hydrocarbon-resistant conta Keep in original container if possible. 	
8. Exposure controls/ personal protecti	on	
Technical measures:	Use the product in a properly ventilated atmosphere. When working on enclosed place (tanks, reservoirs), make sure that atmosphere is not suffocating and/or wear recommended equipment.	
Occupational exposure limit:	oil mist : 10mg/m3, for 15 minutes oil mist : 5mg/m3, for 8 hours	
Hand protection:	Impermeable hydrocarbon-proof gloves. recommended material: nitrile , neoprene. The break through times of the same type of glove of different manufacturers can be very different - even if the layer thickness is similar. Therefore the break through times have to be found out from the manufacturer of the protective gloves themselves. The demands on the gloves are determined by the conditions in practice (e.g. multiple use, mechanical load, temperature, strength and duration of exposition). Before choosing suitable gloves, it is recommended that the user tests the gloves.	
Eye protection:	Goggles, in case of risk of splashing.	
Skin and body (other than the hands) protection:	As required, wear a face mask, hydro safety boots (when handling drums). Don't wear rings, watches or anything product and may give rise to skin cor	g similar which can retain the
Hygienic work practices:	Avoid prolonged and repeated contact used or waste product Immediately remove all soiled or stain If the product comes into contact with area immediately and copiously with Do not use abrasives, solvents or fue Do not dry hands with rags that have product. Do not put product contaminated rage Do not eat, drink or smoke whilst han	ned clothing. In the skin, wash the affected soap and water. els. been contaminated with s into workwear pockets.



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9. Physical and chemical properties

Appearance: Colour:	Liquid. Yellow to amber.
Odour:	Characteristic for oil.
Density/specific gravity: Flash point: Température d'auto-inflammation: Partition coefficient (log Pow): Viscosity:	860 - 865 kg/m3 Temperature (°C) 15 > 200 °C OC (Open cup). > 250 °C (ASTM E 659 - 78) Log Pow > 6 Temperature (°C) 20 32 mm2/s Temperature (°C) 40
10. Stability and reactivity	
Stability:	The product is stable at normal storage, handling and use temperatures.
Conditions to avoid:	Heat (temperatures above flash point), sparks, ignition points, flames, static electricity
Materials to avoid:	Avoid contact with strong oxidizers
Hazardous decomp. products:	Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.
11. Toxicological information	
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-	Not classified according to the criteria of classification in force. Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract.
Acute toxicity / Local effect	Inhalation of high concentrations of vapour or aerosols may cause
Acute toxicity / Local effect	Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract.
Acute toxicity / Local effect Inhalation, comments: Skin contact, comments:	Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract. Not classified according to the criteria of classification in force. In case of ingestion of small quantities, no important effect observed.
Acute toxicity / Local effect Inhalation, comments: Skin contact, comments: Ingestion, comments:	Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract. Not classified according to the criteria of classification in force. In case of ingestion of small quantities, no important effect observed.
Acute toxicity / Local effect Inhalation, comments: Skin contact, comments: Ingestion, comments: Chronic toxicity or long-term toxicity	Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract. Not classified according to the criteria of classification in force. In case of ingestion of small quantities, no important effect observed. in case of ingestion of larger amounts: abdominal pain, diarrhea, Characteristic skin affections (oil blisters) may develop following prolonged and repeated exposure through contact with stained
Acute toxicity / Local effect Inhalation, comments: Skin contact, comments: Ingestion, comments: Chronic toxicity or long-term toxicity Skin contact:	Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract. Not classified according to the criteria of classification in force. In case of ingestion of small quantities, no important effect observed. in case of ingestion of larger amounts: abdominal pain, diarrhea, Characteristic skin affections (oil blisters) may develop following prolonged and repeated exposure through contact with stained clothing To our knowledge, the product does not cause aggravated



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12. Ecological information			
Comments about ecotoxicity:	Experimental data on the finished product are not available. It is considered to present a little danger for aquatic life. No information available for used product		
Mobility:	 Air: there is a slow loss by evaporation. Soil: Given its physical and chemical characteristics, the product generally shows little mobility in the ground. Water: The product is insoluble; it spreads on the surface of the water 		
Persistence and degradability:	No experimental information about the finished product. However the "mineral oil" fraction of the new product is intrinsically biodegradable. Some components of the product may not be biodegradable.		
Various harmful effects:	For Germany WGK 1(VwVwS vom 17/05/99, KBws)		
13. Disposal considerations			
Waste disposal:	Dispose of in a safe manner, in a If need be, collection by an author regeneration or incineration at ar		
Waste class:	13 02 05 The waste classification is depen product at the time of disposal. The waste classification mention recommendation. The waste pro- specification of the waste. The sp classification should be in arrang disposal company.	ed here represents only a ducer is responsible for the correct pecification of the waste	
Disposal of contaminated packaging:	Proceed in compliance with the p	prevailing regulations.	

14. Transport information

Not concerned by the transport regulations below Road (ADR) / Rail (RID) Transport by barge (ADNR) Marine (IMO-IMDG) Air (ICAO/IATA)

15. Regulatory information Not applicable Risk phrases: None Safety phrases: None EU directives: Hazardous preparations directive 1999/45/EC modified (Directive 2001/60/EC).



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Social Security code:	- Art. L.461-6, Art. D.461-1, ann - Art. L 461-6, Art. D.461-1, ann Table of occupational illnesses Table of occupational illnesses Table of occupational illnesses Table of occupational illnesses	exe Á, n°601 and diseases No. 4 bis and diseases No. 36 and diseases n °65
Labor code:	- Art. R 241-50, decree of 07.11	.1977 (special medical surveillance).

16. Other information

This safety data sheet complies with article 31 of the REACH directive 1907/2006/EC

Explanations of R-phrases in section 2: R-50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| 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.