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

**Trade name:** LEYBONOL LVO 700

**Identification of the product:** Oily liquid.

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

**Uses:** Vacuum pump oil, industrial

**Recommended restrictions on use:** Restricted to professional users.

<b>Order number:</b>	<b>Number</b>	<b>Package Size</b>
	L70001	1 liter
	L70005	5 liter

### Details of the supplier of the safety data sheet

**Address supplier** Leybold GmbH  
Bonner Strasse 498  
D-50968 Cologne  
Phone +49-221-347-0  
Fax +49-221-347-1250  
Internet www.leybold.com

**E-Mail:** documentation@leybold.com

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

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## 2. Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

**Chronic aquatic toxicity, Category 3:** H412: Harmful to aquatic life with long lasting effects.

#### Classification (67/548/EEC, 1999/45/EC)

**Dangerous for the environment** R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

**Hazard statements:** H412: Harmful to aquatic life with long lasting effects.

#### Supplemental Hazard Statements:

**Precautionary statements:** Prevention:  
P273 Avoid release to the environment.  
Disposal:  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Additional Labelling:** EUH208 Contains: N-1-naphthylaniline May produce an allergic reaction.

**2.3 Other hazards:** No information available.

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### 3. Composition/ information on ingredients

#### 3.2 Mixtures

##### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4	N; R50/53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.25 - < 2.5
N-1-naphthylaniline	90-30-2 201-983-0	Xn; R22 Xi; R43 N; R50/53	Acute Tox. 4; H302 Skin Sens. 1; H317 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.25 - < 1

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

<b>General advice:</b>	No hazards which require special first aid measures.
<b>If inhaled:</b>	Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If symptoms persist, call a physician.
<b>In case of skin contact:</b>	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.
<b>In case of eye contact:</b>	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
<b>If swallowed:</b>	Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

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

**Symptoms:** None known.

#### 4.3 Indication of any immediate medical attention and special treatment needed

**Treatment:** For specialist advice physicians should contact the Poisons Information Service.

## 5. Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 5.2 Special hazards arising from the substance or mixture

**Specific hazards during firefighting:** Do not allow run-off from fire fighting to enter drains or water courses.

### 5.3 Advice for firefighters

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

**Further information:** Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Use personal protective equipment.

### 6.2 Environmental precautions

**Environmental precautions:** If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up:** Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections:** Refer to protective measures listed in sections 7 and 8.

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## 7. Handling and storage

### 7.1 Precautions for safe handling

**Advice on safe handling:** For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations.

**Advice on protection against fire and explosion:** Normal measures for preventive fire protection.

### 7.2 Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers:** Keep container tightly closed in a dry and well-ventilated place.

**Other data:** No decomposition if stored and applied as directed.

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## 7.3 Specific end uses

**Specific use(s):** Raw material for industry

## 8. Exposure controls/personal protection

### 8.1 Control parameters

Components	CAS-No.	Value	Control Parameters	Update	Basis
2,6-di-tert-butyl-p-cresol	128-37-0	TWA	10 mg/m <sup>3</sup>	2005-04-06	GB EH40

### 8.2 Exposure controls

**Engineering measures:** Ensure that eyewash stations and safety showers are close to the workstation location.  
Effective exhaust ventilation system

#### Personal protective equipment

**Respiratory protection:** Respirator with a vapour filter (EN 141)

**Hand protection:** Polyvinyl alcohol or nitrile- butyl-rubber gloves  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.  
Before removing gloves clean them with soap and water.

**Eye protection:** Eye wash bottle with pure water  
Tightly fitting safety goggles

**Skin and body protection:** impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.  
Wash hands before breaks and at the end of workday.

#### Environmental exposure controls

**General advice:** If the product contaminates rivers and lakes or drains inform respective authorities.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance: Liquid.  
Colour: Yellow.  
Odour: Characteristic.  
Odour Threshold: No information available.  
Flash point: 222 °C  
Ignition temperature: No information available.  
Lower explosion limit: No information available.  
Upper explosion limit: No information available.  
Flammability (solid, gas): No information available.  
Autoignition temperature: No information available.  
pH: No information available.

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Vapour pressure:	No information available.
Density:	0.904 g/cm <sup>3</sup>
Relative density:	No information available.
Water solubility:	No information available.
Partition coefficient: noctanol/water:	No information available.
Solubility in other solvents:	No information available.
Viscosity, kinematic:	31.3 mm <sup>2</sup> /s at 40 °C
Relative vapour density:	No information available.
Evaporation rate:	No information available.

## 9.2 Other information

**Oxidising potential:** Note: No information available.

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## 10. Stability and reactivity

**10.1 Reactivity:** Stable under recommended storage conditions.

**10.2 Chemical stability:** No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

**Hazardous reactions:** Note: No decomposition if used as directed.

### 10.4 Conditions to avoid

**Conditions to avoid:** Exposure to moisture.  
Contamination

### 10.5 Incompatible materials

**Materials to avoid:** Strong acids and oxidizing agents

### 10.6 Hazardous decomposition products

**Hazardous decomposition products:** nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides

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## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

**Acute oral toxicity:** Remarks: Not classified due to lack of data.

**Acute oral toxicity  
2,6-di-tert-butyl-p-cresol:** LD50: > 2,930 mg/kg  
Species: rat  
Method: OECD Test Guideline 401

**N-1-naphthylaniline:** LD50: 1,625 mg/kg  
Species: rat

**Acute inhalation toxicity:** Acute toxicity estimate: 183.33 mg/l  
Method: Calculation method  
Remarks: Not classified due to lack of data.

**Acute dermal toxicity:** Remarks: Not classified due to lack of data.

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**Acute dermal toxicity**  
**2,6-di-tert-butyl-p-cresol:**LD50: > 2,000 mg/kg  
Species: rat  
Method: OECD Test Guideline 402**N-1-naphthylaniline:**LD50 Dermal: > 5,000 mg/kg  
Species: rabbit**Skin corrosion/irritation****Skin irritation:**

Remarks: According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

**Skin irritation**  
**2,6-di-tert-butyl-p-cresol:**Species: rabbit  
Result: No skin irritation**N-1-naphthylaniline:**Species: rabbit  
Result: No skin irritation  
Method: Draize Test**Serious eye damage/eye irritation****Eye irritation:**

Remarks: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

**Eye irritation**  
**2,6-di-tert-butyl-p-cresol:**Species: rabbit  
Result: No eye irritation**N-1-naphthylaniline:**Species: rabbit  
Result: No eye irritation  
Method: OECD Test Guideline 405**Respiratory or skin sensitisation****Sensitisation:**

Remarks: Not classified due to lack of data.

**Sensitisation**  
**2,6-di-tert-butyl-p-cresol:**Species: guinea pig  
Classification: Did not cause sensitization on laboratory animals.**N-1-naphthylaniline:**Maximisation Test (GPMT)  
Species: Guinea pig  
Classification: May cause sensitisation by skin contact.  
Result: May cause sensitisation by skin contact.Patch Test  
Species: Human  
Classification: May cause sensitisation by skin contact.  
Result: May cause sensitisation by skin contact. |**Germ cell mutagenicity**  
**2,6-di-tert-butyl-p-cresol:**Ames test  
Result: negativeChromosome aberration test in vitro  
Result: Conflicting results have been seen in different studies.Unscheduled DNA synthesis (UDS)

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	Result: negative
	In Vitro mammalian Cell Gene Mutation Test Result: negative
<b>N-1-naphthylaniline:</b>	Ames test Result: negative
	Chinese Hamster Ovary (CHO) Result: negative
<b>Genotoxicity in vivo 2,6-di-tert-butyl-p-cresol:</b>	In vivo micronucleus test Species: mouse Method: Mutagenicity (micronucleus test) Result: negative
	in vivo assay Species: rat Method: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Result: negative
<b>N-1-naphthylaniline:</b>	in vivo assay Species: mouse Result: negative
<b>Mutagenicity Assessment</b> Remarks:	Not classified due to lack of data.
<b>Carcinogenicity Assessment</b> Remarks:	Not classified due to lack of data.
<b>Reproductive toxicity Assessment</b> Remarks:	Not classified due to lack of data.
<b>Target Organ Systemic Toxicant - Single exposure</b> Remarks:	Not classified due to lack of data.
<b>Target Organ Systemic Toxicant - Repeated exposure</b> Remarks:	Not classified due to lack of data.
<b>Aspiration hazard</b>	
<b>Aspiration toxicity:</b>	No aspiration toxicity classification
<b>Toxicology Assessment</b>	
<b>Further information:</b>	no data available

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## 12. Ecological information

### 12.1 Toxicity

**Toxicity to fish:** Remarks: no data available

**Toxicity to fish**  
**N-1-naphthylaniline:** LC50: 0.44 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)  
semi-static test Analytical monitoring: yes

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**Toxicity to daphnia and other aquatic invertebrates.:**

Remarks: no data available

**Toxicity to daphnia and other aquatic invertebrates.****N-1-naphthylaniline:**EC50: 0.68 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
semi-static test Analytical monitoring: yes**Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity)****2,6-di-tert-butyl-p-cresol:**NOEC: 0.07 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Analytical monitoring: yes**N-1-naphthylaniline:**NOEC: 0.02 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Analytical monitoring: yes**12.2 Persistence and degradability****Biodegradability:**

Result: no data available

**Biodegradability****2,6-di-tert-butyl-p-cresol:**aerobic  
Result: According to the results of tests of biodegradability this product is not readily biodegradable.  
4,5 %**N-1-naphthylaniline:**aerobic  
Result: According to the results of tests of biodegradability this product is not readily biodegradable.  
0 %  
Method: OECD Test Guideline 301**12.3 Bioaccumulative potential****Bioaccumulation:**

Remarks: no data available

**Bioaccumulation****2,6-di-tert-butyl-p-cresol:**Species: Cyprinus carpio (Carp)  
Exposure time: 56 d  
Temperature: 25 °C  
Concentration: 0.05 mg/l  
Bioconcentration factor (BCF): 230 – 2,500**N-1-naphthylaniline:**Species: Cyprinus carpio (Carp)  
Exposure time: 56 d  
Temperature: 25 °C  
Concentration: 0.1 mg/l  
Bioconcentration factor (BCF): 427 – 2,730**12.4 Mobility in soil****Mobility:**

Remarks: no data available

**12.5 Results of PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).



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## 12.6 Other adverse effects

**Additional ecological information:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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## 13. Disposal considerations

### 13.1 Waste treatment methods

**Product:** The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging:** Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

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## 14. Transport information

**ADR:** Not dangerous goods

**IATA:** Not dangerous goods

**IMDG:** Not dangerous goods

**RID:** Not dangerous goods

**Special precautions for user:** Not classified as dangerous in the meaning of transport regulations. |

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## 15. Regulatory information

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

**REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59):**

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

**Major Accident Hazard Legislation:**

96/82/EC Update: 2003  
Directive 96/82/EC does not apply

**Water contaminating class (Germany):**

WGK 1 slightly water endangering

**Notification status**

US.TSCA:  
DSL:

On TSCA Inventory  
This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL.

AICS:  
NZIoC:  
ENCS:  
KECI:  
PICCS:

On the inventory, or in compliance with the inventory  
Not in compliance with the inventory  
On the inventory, or in compliance with the inventory  
On the inventory, or in compliance with the inventory  
On the inventory, or in compliance with the inventory

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IECSC: Not in compliance with the inventory

**15.2 Chemical Safety Assessment:** No information available.

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## 16. Other information

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

R22 Harmful if swallowed.  
R43 May cause sensitisation by skin contact.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

## History

**Date of issue:** July 19, 2010

**Date of revision:** February 11, 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.

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