

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 1/(12)

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

1.1 Product identifier:

MOL Liton LT 2EP lithium-base lubricating grease

1.2 Relevant identified uses of the mixture and uses advised against

Relevant identified uses: lithium-base lubricating grease

Uses advised against: no data

1.3 Details of the supplier of the safety data sheet:

MOL-LUB Lubricant Production Trade and Service Limited Liability Company

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 34 526 330 / +36 34 526 391

Request SDS of:

MOL-LUB Lubricant Production Trade and Service Limited Liability Company

Customer Service Center

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 80 201 296 / +36 34 348 010

Responsible for SDS:

MOL-LUB Ltd. Csaba Horváth, head of HSE, SD and QOP

Phone: +36 34 526 343; Mobile: +36 20 474 2644

e-mail: csahorvath@mol.hu

Technical information:

MOL-LUB Ltd. Product Development and Technical Service

H-1117 Budapest, Október huszonharmadika utca 18., Hungary

Phone/Fax: +36 80 201 296 or +36 1 464 0236 / +36 1 464 0304

1.4 Emergency telephone number

Emergency telephone (on workdays: 07-15²⁰ h (CET)): +36 34 526 210

Health Toxicological Information Service (ETTSZ 1096 Budapest, Nagyváradi tér 2.)

Tel.: +36 1 476 6464, or +36 80 201 199

National Health Toxicological Information Service:

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 2/(12)

2. Hazards identification

2.1 Classification of the mixture

2.1.1 Classification of the mixture according to regulation (EC) No 1272/2008

Hazard Class and Category:	Hazard statement:
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

2.1.2 Classification of the mixture according to regulation (EC) No 1999/45

Human health hazards:	Danger symbol not required.
Note:	Prolonged and/or repeated contact may cause irritation on skin or in eyes depending on individual sensitivity, and/or skin sensibilization (See also Protective equipment).

Safety hazards:	Danger symbol not required.
-----------------	-----------------------------

Environmental hazards:	Danger symbol not required.
R 52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements (EC) No 1272/2008

Product identification:

Trade name:	MOL Liton LT 2EP lithium-base lubricating grease
-------------	---

Pictogram:	not required
------------	--------------

Signal word:	not required
--------------	--------------

Hazard statement:

H412	Harmful to aquatic life with long lasting effects.
-------------	--

Supplemental hazard information

EUH208	Contains Diterbutyl polysulphide. May produce an allergic reaction.
---------------	---

Precautionary statements – Prevention:

P333+313	If skin irritation or rash occurs: Get medical advice/attention.
-----------------	--

P273	Avoid release to the environment.
-------------	-----------------------------------

Precautionary statements – Disposal:

P501	Dispose of contents/container in accordance with national regulation.
-------------	---

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 3/(12)

Other liabilities for labelling:
Tactile warning of danger: Not required.
Transport classification: see section 14.



2.3 Other hazards
no data available

3. Composition/information on ingredients

3.1 Mixtures

Chemical description: Mineral oil and synthetic oil based consistent lubricant containing lithium soap and additives.

Component / Hazardous component(s):

Name	EINECS number	CAS number	Hazard symbol / Hazard classes and cat.	Risk phrase / Hazard statements	Conc. %(m/m)
Lubricating oils (petroleum), C24-C50* Registration Nr.: 01-2119489969-06	309-877-7	101316-72-7	67/548/EEC: - (Note L) 1272/2008/EC: Asp.Tox.1 (Note L)	- H304	max. 90
Lubricating oils (petroleum), C>25* Registration Nr.: 01-2119486987-11	309-874-0	101316-69-2	67/548/EEC: - (Note L) 1272/2008/EC: - (Note L)	- -	
Ditertbutyl polysulphide 	273-103-3	68937-96-2	67/548/EEC: Xi, N 1272/2008/EC: Skin Irrit. 2 Skin Sens. 1 Aquatic Acute 1 Aquatic Chronic 1	R 38, R 43, R 50/53 H315 H317 H400 H410	max. 0.6
Zinc alkyl dithiophosphate 	272-028-3	68649-42-3	67/548/EEC: Xi, N 1272/2008/EC: Skin Irrit. 2 Eye Dam. 1 Aquatic Chronic 2	R 38, R 41, R 51/53 H315 H318 H411	max. 0.2


SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 4/(12)

Name	EINECS number	CAS number	Hazard symbol / Hazard classes and cat.	Risk phrase / Hazard statements	Conc. %(m/m)
Lithium hydroxide monohydrate 	215-183-4	1310-66-3	<i>67/548/EEC:</i> C, Xn <i>1272/2008/EC:</i> Skin Corr. 1B Acute Tox. 4	R 22, R 34 H314 H302	max. 0.1

*: with exposure limit

The full text of each relevant R-, H- phrase and Hazard classes and cat. see in Section 16.

4. First aid measures

4.1 Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never induce vomiting.

Inhalation: Remove the affected person to fresh air. Seek medical attention.

Skin contact: Remove contaminated clothing. Wash with plenty amount of water, using soap. In case of persistent irritation, get medical advice.

Eye contact: Flush eyes with large amounts of water for at least 15 minutes. Get medical attention.

Ingestion: If swallowed, give drink salted lukewarm water. Induce vomiting. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

-

4.3 Indication of any immediate medical attention and special treatment need

Not required.

5. Fire-fighting measures

Fire hazards:

See also Section 9 - flash point.

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 5/(12)

5.1 Extinguishing media

Suitable extinguishing media:

Sand, carbon dioxide, dry chemical powder.

Unsuitable extinguishing media:

Water jet.

5.2 Special hazards arising from the mixture

Hazardous combustion products:

On burning, carbon monoxide, carbon dioxide, sulphur oxides, phosphor oxides, various hydrocarbons and soot can be formed.

5.3 Advice for fire-fighters

Special protective equipment:

According to the existing fire-fighting regulations.

Further information:

-

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

Danger of slipping on leaked out/spilled product.

6.2 Environmental precautions:

Confine spills to prevent material from entering sewers, watercourses, drains and into soil Notify relevant authority.

6.3 Methods and material for containment and cleaning up

On soil: Take up spilled product with shovel or scoop. Residuals should be cleaned up with cloths and/or sawdust. Dispose of the collected material as hazardous waste, according to local regulations.

On water: Confine the spillage. Remove from surface by skimming. Notify local authorities according to regulations.

6.4 Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 6/(12)

7. Handling and storage

7.1 Precautions for safe handling

General measures for handling lubricant greases should be observed.

Avoid splashing the product.

Avoid contact with skin and eyes.

Ensure washing facilities after working hours and before breaks.

Take off contaminated or oil-soaked clothing immediately, wash with warm water and soap.

After splashing floor may be slippery, use care to avoid falling, contain spills immediately.

When using do not eat, drink or smoke.

Handling temperature: not available

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, well ventilated place in original, tightly closed containers.

Keep away from direct heat, ignition sources and strong oxidizing agents.

Recommended storage temperature: max. 45°C

7.3 Specific end use(s)

Lithium-base lubricating grease.

8. Exposure controls / personal protection

Engineering control measures:

Not required.

8.1 Control parameters: -

8.2 Exposure controls

Personal protection:

Respiratory protection: Breathing apparatus not required.

Hand protection: Oil resistant gloves (EN 374, Breakthrough time 480 min) (e.g. nitrile rubber – minimal thickness 0.33 mm).

Note: Manufacturer's directions for use and the conditions of application should be observed.

Eye protection: Protective goggles not required.

Skin protection: Protective clothing (oil resistant).

Other special: no data

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 7/(12)

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state:	consistent
Colour:	brown, homogenous
Odour:	characteristic

Change in physical state:

Dropping point (ISO 2176):	typ. 195°C
Pour point:	not available

Others:

Flash point (COC) (EN ISO 2592):	> 200°C (base oil)
Ignition point (EN ISO 2592):	not available
Autoignition temperature:	not available
Explosive properties:	not explosive
Oxidizing properties:	not oxidize
Vapour pressure at 20°C:	negligible
Density at 20°C:	not available
Solubility in water:	practically insoluble in water
n-Octanol/water partition coefficient:	not available
Penetration after working – 60 c, at 25°C (0,1 mm) (ISO 2137):	typ. 280
pH:	not applicable

9.2 Other information

no data available

10. Stability and reactivity

10.1 Reactivity: Dangerous reactivity not known.

10.2 Chemical stability: No decomposition if stored and handled properly.

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 8/(12)

- 10.3 Possibility of hazardous reactions: Not known
- 10.4 Conditions to avoid: Direct heat or ignition sources, open flames.
- 10.5 Incompatible materials: Strong oxidizing agents.
- 10.6 Hazardous decomposition products: No dangerous decomposition products are formed under normal conditions. Hazardous combustion products: See Section 5.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Oral:	LD ₅₀ (rat)	> 2000	mg/kg	(based on components)
Dermal:	LD ₅₀ (rabbit)	> 2000	mg/kg	(based on components)

Acute toxicity: irritation

Skin:	not irritant (based on components)
Eye:	not irritant (based on components)
Note:	Prolonged and/or repeated contact may cause irritation on skin or in eyes depending on individual sensitivity.

Respiratory or skin sensitisation: not sensitising (based on components), but may produce an allergic reaction

Chronic toxicity: not known

Other information, specific effects:

The product does not contain PCBs, PCTs, and other chlorine compounds, and heavy metals, barium compounds.

Note L: The classification as a carcinogen need not apply according to 1272/2008/EC, because it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346.

Carcinogen effect: not known, resp. not carcinogen (based on components)

Mutagen effect: not known, resp. not mutagen (based on components)

Reproduction-damaging effect: not known, resp. no reproduction-damaging effect (based on components)

Repeated dose toxicity: not known

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 9/(12)

12. Ecological information

- | | | |
|------|--|--|
| 12.1 | Toxicity | No data available. |
| | Aquatic organisms: | |
| | Soil organisms: | |
| | Plants: | |
| 12.2 | Persistence and degradability | |
| | Biodegradability: | No data available. |
| 12.3 | Bioaccumulative potential | No data available. |
| 12.4 | Mobility | |
| | Mobility in soil: | Soil is not mobile. |
| | Mobility in water: | Floats on water. Does not form continuous layer. |
| 12.5 | Results of PBT and vPvB assessment | Not required. |
| 12.6 | Other adverse effects | |
| | Heavy metal content: | None. |
| | PCT, PCB and other chlorinated hydrocarbons: | None. |
| | Environmental effects: | Harmful to aquatic life with long lasting effects. |
| | Water hazard class (German): | - |

13. Disposal considerations

- 13.1 Waste treatment methods
- Product disposal:
- Wastes of the product or used oil should be treated as hazardous waste.
EWC cod: 12 01 12*
Spent waxes and fats.
Disposal must be in compliance with national and local regulations.
- Packaging disposal:
- Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.
EWC cod: 15 01 10*
Packaging containing residues of or contaminated by dangerous substances.
Disposal must be in compliance with national and local regulations.
- Recommended waste treatment method: incineration

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 10/(12)

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

14. Transport information

Land transport:

Road/ Railway ADR/RID: Not classified.

Waterways:

Inland waterways/ Sea transport ADN/IMDG: Not classified.

Air transport: ICAO / IATA: Not classified.

15. Regulatory information

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

This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 and to Regulation (EC) 1272/2008.

15.2 Chemical safety assessment.

not available

16. Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract.

The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 11/(12)

Source of data presented in this material safety data sheet:

- Test results of this product
- Material safety data sheets of product's components
- Hungarian and EU lists of dangerous substances
- Relevant Hungarian regulation and EU directives

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 (CLP)

Aquatic Chronic 3 H412 (calculated)

The full text of each relevant Hazard classes and cat., R- and H- phrase in Section 3.:

- | | |
|---------|---|
| R 22 | Harmful if swallowed. |
| R 34 | Causes burns. |
| R 36/38 | Irritating to eyes and skin. |
| R 38 | Irritating to skin. |
| R 43 | May cause sensitisation by skin contact. |
| R 50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| R 58 | May cause long-term adverse effects in the environment. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye 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. |

SAFETY DATA SHEET

MOL-LUB Ltd.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **MOL Liton LT 2EP lithium-base lubricating grease**

Version: 5 Latest revision: 01. 08. 2012 Date of issue: 20. 06. 2007 Page: 12/(12)

Acute Tox. 4	Acute toxicity Category 4
Asp.Tox.1	Aspiration hazard Category 1
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Respiratory/skin sensitization Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Aquatic Acute 1	Hazardous to the aquatic environment, Acute Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, Chronic Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, Chronic Category 2

Revision Indicators:

Section	Subject of change	Date	Version
3	Ingredients / Hazardous components	24.04.2008	2
3	Ingredients / Hazardous components	01.08.2008	3
16	The full text of each relevant R phrase in Section 3		
1-16	Other corrections		
2	Hazards identification	16.09.2011	4
3	Composition/information on ingredients		
5	Fire-fighting measures		
12	Ecological information		
16	Other information		
1-16	Revision modification according to 453/2010/EC		
3	Composition/information on ingredients	01.08.2012	5
1-16	Revision modification according to 1272/2008/EC		