

SAFETY DATA SHEET



according to regulation 1907/2006/EC (REACH) and 1272/2008/EC

MOL-LUB Kft.

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

Version: 12 Latest revision: 17. 08. 2023 Date of issue: 20. 06. 2007 Page: 1/(14)

SECTION 1: Identification of the substance/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 substance or mixture and uses advised against

Relevant identified uses: lithium-base lubricating grease

Uses advised against: application other than the above.

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

E-mail: kenoanyag@mol.hu

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 Kft.

Phone: +36 80 201 296

e-mail: EBKHelpdesk@MOL.hu

1.4. Emergency telephone number

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

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián út 2-6.)

Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).

+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

National Health Toxicological Information Service:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Class and Category: Hazard statement:

Not classified.

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2.2. Label elements

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

Hazardous component(s): -

Pictogram: not required

Signal word: not required

Hazard statement:

not required

Supplemental hazard information: -

Precautionary statements – General: -

Precautionary statements – Prevention:

P273 Avoid release to the environment.

Precautionary statements – Response: -

Precautionary statements – Storage: -

Precautionary statements – Disposal:

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

Other liabilities for labelling:

Tactile warning of danger: Not required.

Transport classification: see section 14.

2.3. Other hazards

The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006, at a concentration of 0.1% or more.

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

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SECTION 3 Composition/information on ingredients

3.2. Mixtures

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

Component(s) / Hazardous component(s):

Name	EC number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/m)
Distillates (petroleum), solvent-dewaxed heavy paraffinic* REACH Registr. Nr.: 01-2119471299-27	265-169-7	64742-65-0	- (Note L)	-	max. 90
Residual oils (petroleum), solvent-dewaxed REACH Registr. Nr.: 01-2119480472-38	265-166-0	64742-62-7	- (Note L)	-	max. 40
Distillates (petroleum), hydrotreated heavy naphthenic REACH Registration Nr.: 01-2119467170-45	265-155-0	64742-52-5	- (Note L)	-	max. 30
Zinc alkyl dithiophosphate** REACH Registr. Nr.: 01-2120742271-64	272-028-3	68649-42-3	Skin Irrit. 2 Eye Dam. 1 Aquatic Chronic 2	H315 H318 H411	max. 1.2

*: with exposure limit

**Specific concentration limit: Skin Irrit. 2; : $C \geq 5\%$;
Eye Dam. 1; : $C > 10\%$; Eye Irrit. 2; : $5\% \leq C \leq 10\%$.

Note L:

The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

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

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SECTION 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.

Protection of first-aid person: No individual specifications.

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

Prolonged and/or repeated contact may cause irritation on skin or in eyes depending on individual sensitivity.

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

Not required.

SECTION 5: Fire-fighting measures

Fire hazards:

Combustible.

5.1. Extinguishing media

Suitable extinguishing media:

Sand, carbon dioxide, dry chemical powder.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or 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:

Collect contaminated fire-fighting water separately. It must not enter the sewage system.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

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SECTION 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.

SECTION 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.

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SECTION 8: Exposure controls / personal protection

8.1. Control parameters: -

Mineral oil mist: TWA: **5 mg/m³**; STEL: 10 mg/m³, for oil mist, vapour excluded (ACGIH).

Method of testing, recommended: NIOSH 5026

8.2. Exposure controls

Engineering control measures:

Not required.

Personal protection:

(a) Eye/face protection Tightly fitting safety goggles (EN 166).

(b) Skin protection

(i) Hand protection Oil resistant gloves (EN 374, Breakthrough time > 480 min, PK power level: 6; PR flow rate: 0).

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

(ii) Other Protective clothing (oil resistant).

(c) Respiratory protection Breathing apparatus not required.

(d) Thermal hazards No data.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- | | |
|--|--------------------|
| a) Physical state: | consistent |
| b) Colour: | brown, homogenous |
| c) Odour: | characteristic |
| d) Melting point/freezing point (Pour point) (ISO 3016): | not available |
| e) Boiling point or initial boiling point and boiling range (DIN 51356): | not available |
| f) Flammability: | combustible |
| g) Lower and upper explosion limit: | not explosive |
| h) Flash point (COC) (EN ISO 2592): | > 200°C (base oil) |
| i) Auto-ignition temperature: | not available |

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- | | |
|---|--------------------------------|
| j) Decomposition temperature: | not available |
| k) pH: | not applicable |
| l) Kinematic viscosity at (DIN EN ISO 3104): | |
| 40°C: | not available |
| 100°C: | not available |
| m) Solubility | |
| Solubility in water: | practically insoluble in water |
| Solubility in other solvents: | not available |
| n) Partition coefficient n-octanol/water (log value): | not available |
| o) Vapour pressure at 20°C: | negligible |
| p) Density and/or relative density at 15°C: | 0.895 g/cm ³ |
| q) Relative vapour density: | not available |
| r) Particle characteristics: | not available |

9.2. Other information

- | | |
|---|-------------|
| Oxidizing properties: | not oxidize |
| Dropping point (ISO 2176): | typ. 195°C |
| Penetration after working – 60 c, at 25°C
(0,1 mm) (ISO 2137): | typ. 280 |

SECTION 10: Stability and reactivity

- | | |
|---|---|
| 10.1. Reactivity: | Dangerous reactivity not known. |
| 10.2. Chemical stability: | No decomposition if stored and handled properly. |
| 10.3. Possibility of hazardous reactions: | Not known. |
| 10.4. Conditions to avoid: | Direct heat or ignition sources. |
| 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. |

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity: Based on available data, the classification criteria are not met

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

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Components:

Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS: 64742-65-0)

Oral:	LD ₅₀ (rat)	> 5000 mg/kg	(literature data)
Dermal:	LD ₅₀ (rabbit)	> 2000 mg/kg	(literature data)
Inhalation:	LC ₅₀ (rat)	> 5.53 mg/L/4 h	(literature data)

Residual oils (petroleum), solvent-dewaxed (CAS: 64742-62-7)

Oral:	LD ₅₀ (rat)	> 5000 mg/kg	(OECD 401)
Dermal:	LD ₅₀ (rabbit)	> 5000 mg/kg	(OECD 402)
Inhalation:	LC ₅₀ (rat)	> 5.53 mg/L (4 h)	(OECD 403)

Distillates (petroleum), hydrotreated heavy naphthenic (CAS: 64742-52-5):

Oral:	LD ₅₀ (rat)	> 5000 mg/kg	(API 1986a)
Dermal:	LD ₅₀ (rabbit)	> 5000 mg/kg	(API 1982)
Inhalation:	LC ₅₀ (rat)	> 5.53 mg/L (4 h)	(EMBSI 1988a)

Zinc alkyl dithiophosphate (CAS: 68649-42-3):

Dermal:	LD ₅₀ (rat)	> 2000 mg/kg
Oral:	LD ₅₀ (rat)	2230 mg/kg
Oral:	LD ₅₀ (rat)	3100 mg/kg

Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data, the classification criteria are not met.
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

11.2. Information on other hazards

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

SECTION 12: Ecological information

12.1. Toxicity

No data for the product.

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Components:

Distillates (petroleum), solvent- dewaxed heavy paraffinic (CAS: 64742-65-0)

Fishes:	LC ₅₀	> 100 mg/L	(literature data)
Daphnia:	EC ₅₀	> 100 mg/L	(literature data)
Other aquatic organisms:	EC ₅₀	> 100 mg/L	(literature data)
Algae:	ErC ₅₀	> 100 mg/L	(literature data)
Other living beings:	TLM	> 1 mg/L	(literature data)

Residual oils (petroleum), solvent-dewaxed (CAS: 64742-62-7)

Fishes (Pimephales promelas):	LL ₅₀	> 100 mg/L	96 h (OECD 203)
Fishes:	NOEL	≥ 100 mg/L	
Daphnia (Daphnia magna):	EL ₅₀	> 10000 mg/L	8 h (OECD 202)
Daphnia:	NOEL	≥ 1000 mg/L	
Daphnia:	NOEL	10 mg/L	21 days (OECD 211)
Gammarus pulex:	LL ₅₀	> 10000 mg/L	96 h (OECD 202)
Aquatic invertebrates:	NOEL	≥ 10000 mg/L	
Algae (Pseudokirchneriella subcapitata):	NOEL	≥ 100 mg/L	72 h (OECD 201)
Activated sludge (Photobacterium phosphoreum):	NOEL	1.93 mg/L	96 h

Distillates (petroleum), hydrotreated heavy naphthenic (CAS: 64742-52-5):

Fishes:	LL ₅₀	> 100 mg/L	96 h
Algae:	NOEL	> 100 mg/L	72 h
Aquatic invertebrates:	EL ₅₀	> 10000 mg/L	96 h
Aquatic invertebrates:	NOEL	10 mg/L	21 days

12.2. Persistence and degradability

Biodegradability: Hydrocarbons are inherently degradable.

12.3. Bioaccumulative potential

Distillates (petroleum), hydrotreated heavy naphthenic (CAS: 64742-52-5): No data for the product.

Log Pow: 2 – 6; BCF: <500 (low)

12.4. Mobility in soil:

Distillates (petroleum), hydrotreated heavy naphthenic (CAS: 64742-52-5): Absorbs in soil.

Log Kow: > 3.0

Mobility in water: Floats on water. Does not form continuous layer.

12.5. Results of PBT and vPvB assessment

Does not contain PBT and vPvB substances, at a concentration of 0.1% or more.

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14.2. UN proper shipping name:	Not classified.
14.3. Transport hazard class(es):	Not classified.
14.4. Packing group:	Not classified.
14.5. Environmental hazards:	Not classified.
14.6. Special precautions for user:	Not classified.
14.7. Maritime transport in bulk according to IMO instruments	not applicable
Waterways:	
Inland waterways/ Sea transport ADN/IMDG:	Not apply to the product.
Air transport: ICAO / IATA:	Not apply to the product.

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture. This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008. Seveso category: not classified.
- 15.2. Chemical safety assessment.
not available

SECTION 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.

Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 (CLP)
Not classified.

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

H315	Causes skin irritation.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category
Aquatic Chronic 2	Hazardous to the aquatic environment, Chronic Category 2

Legend:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BOD	Biological Oxygen Demand
Bw	Body Weight
C&L	Classification and Labelling
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (1272/2008/EC)
CMR	Carcinogenic, Mutagenic or toxic to Reproduction
COD	Chemical Oxygen Demand
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency
Ec _x	Effective Concentration x%
ErC ₅₀	EC ₅₀ in terms of reduction of growth rate
Ed _x	Effective Dose x%
EC	European Community
EC number	European Community number
ELINCS	European List of Notified Chemical Substances
ES	Exposure Scenario
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC _x	Lethal Concentration x%
LD _x	Lethal Dose x%
LOAEC	Lowest Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
NOEC	No observed effect concentration
NOEL	No observed effect level

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NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts/million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International carriage of Dangerous Goods by Rail
SVHC	Substance of Very High Concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bio-accumulative

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		
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		
2	Hazards identification	27. 09. 2013	6
3	Composition/information on ingredients		
4	First aid measures		
11	Toxicological information		
12	Ecological information		
1	Details of the supplier of the safety data sheet, Responsible for SDS	17. 06. 2015	7
2	Other hazards		
3	Composition/information on ingredients		
5	Fire hazards		
12	Ecological information		
14	Transport information		
1-16	Other corrections, revision modification according to 2015/830 /EC		

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Revision Indicators:

Section	Subject of change	Date	Version
1-16	Other corrections	01. 06. 2016	8
3	Composition/information on ingredients	29. 06. 2017	9
2	Hazards identification	23. 05. 2019	10
3	Composition/information on ingredients		
9	Physical and chemical properties		
12	Ecological information		
1-16	Other corrections		
1-16	Full revision due to composition change Revision modification according to 2020/878/EU	30. 09. 2022	11
14.7.	Maritime transport in bulk according to IMO instruments	17. 08. 2023	12