MATERIAL SAFETY DATA SHEET

MOL-LUB Ltd.

(1907/2006/EC)

Trade name: MOL Cleanex-A engine degreaser

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1. Identification of the substance / preparation and of the company

Product name:

MOL Cleanex-A

Product type / recommended uses:

preparation / engine degreaser

Manufacturer / Supplier identification:

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 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

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

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

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

2. Hazards identification

Human health hazards: Xi (irritant)

R 36 Irritating to eyes

Safety hazards: Danger symbol not required.

Environmental hazards: Danger symbol not required.

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3. Composition / information on ingredients

Chemical description: Surfactants, additives and calorific in water.

Ingredients / Hazardous components:

Name	EINECS	CAS	Hazard	Risk phrase	Conc.
	number	number	symbol		%(m/m)
Alcohol, ethoxylated (C9-11)			Xi	R 38, R 41	max. 4.5
Coco alkyl methylammonium			Xn, N	R 22, R 38,	max. 2.2
chloride, ethoxylated				R 41, R 50	
Long-chain alcohol, alkoxylated	polymer		Xi	R 38, R 41	max. 1.0

The full text of each relevant R phrase see in Section 16.

4. 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.

Skin contact: Wash skin with large amounts of water, use soap. Remove contaminated

clothing. In case of persistent irritation, get medical attention.

Eye contact: Flush eyes with plenty of water for 10-15 minutes. In case of persistent

irritation, get medical attention.

Ingestion: Do not induce vomiting. Get medical attention.

Note to physician:

5. Fire-fighting measures

Fire hazards:

Not flammable.

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings (foam, carbon dioxide, dry chemical powder).

Unsuitable extinguishing media:

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Hazardous decomposition products:

On burning, carbon monoxide, carbon dioxide, and other gases can be formed.

Special protective equipment:

According to the existing fire-fighting regulations (self-contained breathing apparatus).

Further information:

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

6. Accidental release measures

Personal precautions:

See Section 8.

Environmental precautions:

Prevent spills from entering into natural water, soil and drains by containing the liquid. Notify relevant authority.

Clean-up procedures / recovery

On soil: Contain spilled liquid with sand, earth or other suitable absorbents. Dispose

of according to local regulations.

On water: Notify local authorities according to regulations.

7. Handling and storage

Handling:

Keep general measures applied for normal operations with chemicals.

Avoid contact with material, eye contact.

Handling temperature:

Storage:

Store in closed original, closed containers.

Protect from frost.

Storage temperature: max. 35°C

Specific application:

See product sheet.

8. Exposure controls / personal protection

Engineering control measures:

Not required.

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Exposure limits: -

Personal protection:

Respiratory protection: Not required.

Hand protection: Chemical resistant gloves recommended.

Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or

damaged gloves.

Eye protection: Protective goggles recommended.

Skin protection: Protective clothing.

Other special:

General protective measures / hygiene:

Avoid contact with skin and eyes. Avoid prolonged breathing of vapours.

Ensure washing facilities after working hours and before breaks. Take off contaminated or oil-soaked clothing, wash with warm water and soap.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

9. Physical and chemical properties

Appearance:

Physical state: liquid
Colour: yellow, clear
Odour: characteristic

Change in physical state:

Melting point: Boiling point:

Others:

Flash point (PM) (EN ISO 2592): not applicable Ignition point (EN ISO 2592): not applicable Autoignition temperature: not applicable

Explosive properties: not explosion dangerous

Oxidizing properties: Vapour pressure at 20°C:

Density at 15°C (EN ISO 12185): 1.02 g/cm³ Solubility in water: dissolve

Solubility in other solvents:

n-Octanol/water partition coefficient: not available

Vapour density (air=1):

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Evaporation rate:

Kinematic viscosity (EN ISO 3104)

at 40°C: not available

pH: 8-8,5

10. Stability and reactivity

Stability: No decomposition if stored and handled properly.

Conditions to avoid: Not known. Protect from frost.

Materials to avoid:

Hazardous decomposition

At high temperature carbon monoxide, carbon dioxide, and

products: other gases can be formed.

Notes:

11. Toxicological information

Acute toxicity: No data for the product.

Oral: Dermal:

Acute toxicity: irritation

Skin: not irritant (based on components)
Eye: irritant (based on components)

Sensitization: not sensitising (based on components)

Chronic toxicity: not known
Other information, specific effects:

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)

12. Ecological information

Mobility: It is water miscible.

Degradability / persistence:

Biodegradability: Alcohol, ethoxylated (OECD 301D): > 60 % BOD, 28 day

Alcohol, ethoxylated (OECD 306): > 70 % BOD, 28 day

Coco alkyl methylammonium chloride,

ethoxylated (OECD 301D): > 60 % BOD, 28 day

Long-chain alcohol, alkoxylated

(OECD 303A): $\geq 90 \%$

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Bioaccumulative potential: No data for the product. Ecotoxicity: No data for the product. *Coco alkyl methylammonium chloride, ethoxylated:*

Aquatic organisms: Fisch LC₅₀: 10-100 mg/l/96 h

Daphnia EC₅₀: 0.11-1 mg/l/48 h Algae EC₅₀: 1-10 mg/l/72 h

Bacteria: Plants:

Biological oxygen demand: Chemical oxygen demand: Heavy metal content:

Environmental effects: Large spills may be hazardous to the environment.

Water hazard class (German):

13. Disposal considerations

Product disposal:

Wastes of the product or used oil should be treated as hazardous waste.

EWC cod: 20 01 29*

Detergents containing dangerous substances.

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.

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.

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15. Regulatory information

Classification and labelling according to EU directives [67/548/EEC and 1999/45/EC (existing versions)] and to Hungarian regulation [44/2000. (XII. 27.) EüM rendelet (existing version)] for hazardous substances and hazardous preparations:

Danger symbol(s) and indication(s):

irritant

Hazardous substance(s):

The packaging must bear the inscription: -

R-phrases: R 36 Irritating to eyes

S-phrases: S 2 Keep out of the reach of children

S 25 Avoid contact with eyes

Tactile warning of danger: Not required.

Additional committing for labelling:

By 648/2004/EC regulation:

Components: 5-15 % kationic and non-ionic surfactants

16. Other information

Recommended application / restrictions:

See product sheets.

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.

This safety data sheet has been prepared according to Regulation (EC) No 1907/2006, Directive 1999/45/EC.

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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

The full text of each relevant R phrase in Section 3.:

- R 22 Harmful if swallowed
- R 38 Irritating to skin
- R 41 Risk of serious damage to eyes
- R 50 Very toxic to aquatic organisms

Revision Indicators:

Section	Subject of change	Date	Version