

Material Safety Data Sheet

Revision Date 1/16/2014

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1. PRODUCT AND COMPANY IDENTIFICATION

Product: Advanced Lubricant Package for Compression Ignition Fuels

Product Numbers: 200155 - 200166

Brand: MotorSilk

Supplier: Advanced Lubrication Technology, Inc.
30852 Agoura Road, Suite 305
AGOURA HILLS, CA 91301
USA

Telephone: +1 888-259-9190

Fax: +1 818-597-2503

Emergency Phone # (For both supplier and manufacturer):
Emergency: INFOTRAC 1.800.535.5053
International: Collect 1.352.323.3500

Preparation Information: Advanced Lubrication Technology, Inc.
+1 888-259-9190

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Target Organ Effect, Irritant

Target Organs

Eyes, Skin, Central nervous system (ingestion)

GHS Classification

Acute toxicity, Oral (Category 5)

Skin irritation (Category 2)

Eye irritation (Category 2A)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H303

May be harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

Precautionary statement(s)

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification

Health hazard: 1

Chronic Health Hazard: *

Flammability: 1

Physical hazards: 0

NFPA Rating

Health hazard: 1

Fire: 1
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

There are no component ingredients with concentrations deemed hazardous pursuant to relevant GHS Classification.

Ingredient Name	CAS No.	Amount by Weight	Within GHS/OSHA Flamability	— NFPA / HNIS —			Ingredient CC Flash Point
				Hazard ID Health	Flammability	Reactivity	
Synthetic Base Oil Mixture	Various	>5%, < 15%	NO	0 / 0	1 / 1	0 / 0	> 200 Deg C
Triglycerides	N/A	>40%, < 60%	NO	0 / 0	1 / 1	0 / 0	> 225 Deg D
Polyol/Diol Mixture	Various	>30%, < 50%	NO	1 / 1	1 / 1	0 / 0	>93 Deg C, < 215 deg C
Boric Acid	10043-35-3	>1%, < 5.5%	NO	1 / 0	0 / 0	0 / 0	NA
Proprietary Additive	Proprietary	> 0.5%, < 2.5%	NO	1 / 1	2 / 2	0 / 0	> 95 Deg C

4. FIRST AID MEASURES

General advice

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Store under inert gas. Hygroscopic.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters: To the best of our knowledge product does not contain chemicals at concentrations where workplace parameters require reporting under this section. Nevertheless, the product is classified under GHS as having Category 5, Oral, Acute Toxicity; Category 2, Skin irritation; and Category 2A, Eye irritation. Therefore persons who have prolonged contact and/or exposure to the product in the workplace should strongly consider the following precautions when in the long term presence of or when handling the product

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: > 480 min

Material tested: Camatril®

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 30 min

Material tested: Dermatril®

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	Transparent light brown

Safety data

pH	6.5 - 7.3 at 118.2 g/l at 25 °C (77 °F)
Melting point/freezing point	Melting point/range: -40 °C (-40 °F) - lit.
Boiling point	183 °C (361 °F) - lit.
Flash point	>94 °C (201 °F) - closed cup
Ignition temperature	290 °C (554 °F)
Autoignition temperature	no data available
Lower explosion limit	1.3 %(V)
Upper explosion limit	7.4 %(V)
Vapour pressure	0.06 hPa (0.02 mmHg) at 20 °C (68 °F)
Density	0.884 g/cm ³ at 25 °C (77 °F)
Water solubility	N/D
Partition coefficient: n-octanol/water	log Pow: -0.14
Relative vapour density	4.08 - (Air = 1.0)
Odour	mild
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Avoid moisture.

Materials to avoid

Strong acids, Strong oxidizing agents, Strong reducing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 3,700 mg/kg

Inhalation LC50

no data available

Dermal LD50

LD50 Dermal - rabbit - 7,892 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin - rabbit - Skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

- | | |
|-------------------|---|
| Inhalation | May be harmful if inhaled. May cause respiratory tract irritation. |
| Ingestion | May be harmful if swallowed. |
| Skin | May be harmful if absorbed through skin. May cause skin irritation. |
| Eyes | Causes eye irritation. |

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: SA0810000

12. ECOLOGICAL INFORMATION**Toxicity**

- | | |
|---|---|
| Toxicity to fish | LC50 Pimephales promelas (fathead minnow) -10,700 mg/l - 96 h |
| Toxicity to Daphnia and other aquatic invertebrates | EC50 Daphnia magna (Water flea) - 3,200 mg/l -46 h |

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Product**

Contact a licensed professional waste disposal service to dispose of this material. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards: This product is subject to the requirements of the Hazard Communication Standard 29 CFR 1910.1200; and more specifically therein with regard to identification of toxicity related to the Target Organ Effect, "Irritant" under GHS.

WHIMS (Canada): Class D-2B (TOXIC) Product contains material that may lead to or cause skin and eye irritation.

DSCL (EEC): R36/38 - Irritating to eyes and skin. S36/37/39 Wear suitable protective clothing and eye protection.

SARA 302 Components:

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard

Pennsylvania Right To Know Component:

To the best of our knowledge, product does not contain chemicals at levels which require reporting under this statute.

New Jersey Right To Know Component:

To the best of our knowledge, product does not contain chemicals at levels which require reporting under this statute.

Massachusetts Right To Know Components:

To the best of our knowledge, product does not contain chemicals at levels which require reporting under this statute.

California Prop. 65 Components

WARNING: This product contains chemicals known to State of California to cause cancer.

Chemical: Propylene Oxide; CAS# 75-56-9; Amount ≤ 30 ppm.

16. OTHER INFORMATION

Further information

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