

Issue Date 22-May-2017

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Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name MICROLUBE GB 00

Other means of identification

Product code: 020236

UN-No: UN3077

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant.

Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address

Klüber Lubrication NA LP

32 Industrial Drive

Londonderry, NH 03053

Phone: (603) 647-4104

Fax: (603) 647-4106

Emergency telephone number

Emergency Telephone CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

2. HAZARD IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|-----------------------------------|------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Skin sensitization | Category 1 |

Label Elements

EMERGENCY OVERVIEW

Signal word

Warning

Hazard statements

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction



Appearance Paste

Physical state Solid

Odor Mild

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace

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

If eye irritation persists: Get medical advice/attention

Skin IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

• Toxic to aquatic life with long lasting effects

Unknown Acute Toxicity

15.5976% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the Canadian Hazardous Products Regulation (WHMIS 2015).

| Components | CAS-No | Weight % | Trade Secret |
|--|-------------|----------|--------------|
| Mineral Oil | Proprietary | 70 - 80% | * |
| Silica | Proprietary | 1 - 5% | * |
| Amines, C12-14-alkyl, reaction products with hexanol, phosphorus oxide (P2O5), phosphorus sulfide (P2S5) and propylene oxide | 91745-46-9 | 1 - 2.5% | * |
| Zinc, dithiophosphate di-C1-14-alkyl esters | 68649-42-3 | 1 - 3% | * |

4. FIRST AID MEASURES

First aid measures

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

Skin contact: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

Inhalation: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.

Ingestion: Do not induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Carbon dioxide (CO₂). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapors. Water may be used to cool closed containers.

Hazardous combustion products Carbon oxides. Nitrogen oxides (NO_x). Oxides of sulfur.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for firefighters:

In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Environmental precautions

Environmental precautions: Do not allow material to contaminate ground water system. Prevent product from entering drains. Avoid subsoil penetration.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Scrape-up. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep cool. Keep in properly labelled containers. Keep away from heat and sources of ignition. Handle and open container with care

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Components | ACGIH TLV | OSHA (TWA mg/m ³): | IDLH: |
|------------|-----------|--------------------------------|-------|
| Silica - | - | 0.8 mg/m ³ | |

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally required.
Hand protection: Impervious gloves
Eye protection: Safety glasses with side-shields
Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect
General Hygiene Considerations Avoid contact with skin, eyes and clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-------------------------------------|--------------------------|-------------------------|---|
| Physical state Solid | | | |
| Appearance Paste | Odor Mild | Color Red brown | Odor threshold No information available |
| Property | Values | Remarks • Method | |
| Melting point/freezing point | No information available | | pH Not applicable |
| Flash point | Not Applicable | ISO 2592 | Boiling point / boiling range No information available |
| Flammability (solid, gas) | No information available | | Evaporation rate No information available |
| Upper flammability limit: | No information available | | Flammability Limit in Air Lower flammability limit: No information available |
| Vapor pressure | < 0.001 hPa, 20 °C | | Vapor density No information available |
| Specific Gravity | 0.90 | | Water solubility Insoluble in water |
| Solubility in other solvents | No information available | | Partition coefficient No information available |
| Autoignition temperature | No information available | | Decomposition temperature No information available |
| Kinematic viscosity | No information available | | Dynamic viscosity No information available |
| Explosive properties | No information available | | |
| Oxidizing properties | No information available | | |

Other information

| | |
|-------------------------|--------------------------|
| Softening point | No information available |
| Molecular weight | No information available |
| VOC Content (%) | No information available |
| Density | No information available |
| Bulk density | No information available |

10. STABILITY AND REACTIVITY**Reactivity**

Not applicable

Chemical stability

| | |
|------------------|--------------------------------|
| Stability | Stable under normal conditions |
|------------------|--------------------------------|

Possibility of Hazardous Reactions

| | |
|---|--|
| Possibility of Hazardous Reactions | None under normal processing. |
| Hazardous polymerization | Hazardous polymerization does not occur. |

Conditions to avoid

| | |
|----------------------------|-------------------------|
| Conditions to avoid | Heat, flames and sparks |
|----------------------------|-------------------------|

Hazardous Decomposition Products

| | |
|---|------------------------------|
| Hazardous Decomposition Products | None under normal processing |
|---|------------------------------|

Incompatible materials

| | |
|-------------------------------|-------------------------|
| Incompatible materials | Strong oxidising agents |
|-------------------------------|-------------------------|

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

| | |
|----------------------------|--|
| Product Information | Product does not present an acute toxicity hazard based on known or supplied information |
| Eye contact | Irritating to eyes. |
| Skin contact | Irritating to skin. May cause sensitization by skin contact. |
| Inhalation | Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract. |
| Ingestion | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. |

| Components | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|-----------------------|-------------------------|-------------------------|
| Mineral Oil - | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | = 2.18 mg/L (Rat) 4 h |
| Silica - | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | > 2.2 mg/L (Rat) 1 h |
| Amines, C12-14-alkyl, reaction products with hexanol, phosphorus oxide (P2O5), phosphorus sulfide (P2S5) and propylene oxide - 91745-46-9 | > 10000 mg/kg (Rat) | - | - |

Information on toxicological effects**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

| | |
|----------------------|--|
| Sensitization | May cause sensitization by skin contact. |
|----------------------|--|

| | |
|---|--|
| Mutagenic effects: | Did not show mutagenic or teratogenic effects in animal experiments. |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |
| Components | Silica - |
| ACGIH | - |
| IARC: | Group 3 |
| NTP Report on Carcinogens List - | - |
| OSHA | - |
| Reproductive toxicity | This product does not contain any known or suspected reproductive hazards. |
| STOT - Single Exposure | None under normal use conditions. |
| STOT - Repeated Exposure | None under normal use conditions. |
| Aspiration hazard | Not applicable. |

Numerical measures of toxicity - Product Information

| | |
|---|---|
| Unknown Acute Toxicity | 15.5976% of the mixture consists of ingredient(s) of unknown toxicity |
| The following values are calculated based on chapter 3.1 of the GHS document . | |
| ATEmix (oral) | 5151 mg/kg |
| ATEmix (dermal) | 2247 mg/kg |

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

14.0976% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| | |
|---|--|
| Mineral Oil - | |
| Algae/aquatic plants | - |
| Fish | 5000: 96 h Oncorhynchus mykiss mg/L LC50 |
| Crustacea | 1000: 48 h Daphnia magna mg/L EC50 |
| Silica - | |
| Algae/aquatic plants | 440: 72 h Pseudokirchneriella subcapitata mg/L EC50 |
| Fish | 5000: 96 h Brachydanio rerio mg/L LC50 static |
| Crustacea | 7600: 48 h Ceriodaphnia dubia mg/L EC50 |
| Amines, C12-14-alkyl, reaction products with hexanol, phosphorus oxide (P2O5), phosphorus sulfide (P2S5) and propylene oxide - 91745-46-9 | |
| Algae/aquatic plants | - |
| Fish | 16 - 26: 96 h Pimephales promelas mg/L LC50 semi-static |
| Crustacea | - |
| Zinc, dithiophosphate di-C1-14-alkyl esters - 68649-42-3 | |
| Algae/aquatic plants | - |
| Fish | 1.0 - 5.0: 96 h Pimephales promelas mg/L LC50 static 10.0 - 35.0: 96 h Pimephales promelas mg/L LC50 semi-static |
| Crustacea | 1 - 1.5: 48 h Daphnia magna mg/L EC50 |

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

The product is insoluble and floats on water.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|-------------------------------|---|
| Disposal of wastes | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging | Empty containers should be taken for local recycling, recovery or waste disposal. |

14. TRANSPORT INFORMATION

| | |
|------------------------------|---|
| DOT | Not regulated by ground transportation only. |
| UN-No: | UN3077 |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine, Phenol, heptyl derivatives) |
| Hazard Class: | 9 |
| Packing group: | PGIII |

| | |
|------------------------------|---|
| TDG | |
| UN-No: | UN3077 |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine, Phenol, heptyl derivatives) |
| Hazard Class: | 9 |
| Packing group: | PGIII |

| | |
|------------------------------|---|
| IATA-DGR | |
| UN-No: | UN3077 |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine, Phenol, heptyl derivatives) |
| Hazard Class: | 9 |
| Packing group: | PGIII |

| | |
|-----------------------------|---|
| IMO / IMDG | |
| UN/ID No. | UN3077 |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((Z)-octadec-9-enylamine, Phenol, heptyl derivatives) |
| Hazard Class | 9 |
| Packing group | PGIII |
| EmS: | F-A, S-F |
| Marine pollutant | Marine pollutant |

15. REGULATORY INFORMATION

International Inventories

| | |
|----------------------|---|
| TSCA: | Listed in TSCA |
| DSL: | All of the components in this product are listed in DSL |
| EINECS/ELINCS | This product complies with EINECS/ELINCS |
| CHINA: | This product complies with China IECSC. |
| KECL: | This product does not comply with Korea KECL. |
| PICCS: | This product does not comply with Philippines PICCS. |
| AICS: | This product does not comply with Australia AICS |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Components | SARA 313 Threshold: |
|---|---------------------|
| Zinc, dithiophosphate di-C1-14-alkyl esters | Zinc compound (1%) |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations (RTK)

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

| Components | NJRTK: | MARTK: | PARTK: |
|---|----------------------------|------------|---------|
| Silica - | Substance no. 3510 Listed. | Listed. | Listed. |
| Zinc, dithiophosphate di-C1-14-alkyl esters - 68649-42-3 | Substance no. 3012 Listed | Not Listed | Listed |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Nfpa:

Health: 2

Flammability: 1

Instability 0

NFPA/HMIS * for Carc, Muta, Tera, Specific Organ *

HMIS health rating:

Health: 2

Flammability: 1

Physical hazards 0

Personal protection B

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Revision Note

Not applicable

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet