

| 1. Identification | | |
|-------------------------------|---------------------|--|
| Product name | LUBRODAL E 3672 | |
| Other means of identification | No data available. | |
| Recommended use: | Metalworking fluid | |
| Restrictions on use: | Industrial use only | |

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

| Company Name: | Fuchs Lubricants Co. |
|-----------------|------------------------|
| Address: | 17050 Lathrop Avenue |
| | Harvey, Illinois 60426 |
| Telephone: | 708-333-8900 |
| Fax: | 708-333-9180 |
| | |
| Contact Person: | EHS Department |
| E-mail: | msds@fuchs.com |

Emergency telephone number: 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Inhalation - dust and Category 4 mist)

Label Elements

Hazard Symbol:



Signal Word:

Warning

Hazard Statement:

Harmful if inhaled.

Precautionary Statement



| Prevention: | | preathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a ntilated area. |
|--|----------|---|
| Response: | | ALED: Remove person to fresh air and keep comfortable for ng. Call a POISON CENTER/doctor if you feel unwell. |
| Disposal: | facility | e of contents/container to an appropriate treatment and disposal in accordance with applicable laws and regulations, and product teristics at time of disposal. |
| Other hazards which do not result in GHS classification: | None. | |
| Unknown toxicity Health | | |
| Acute toxicity, inhalation, on mist | dust | 41.37 % |
| Acute toxicity, inhalation, | vapor | 100 % |

3. Composition/information on ingredients

Acute toxicity, dermal

Acute toxicity, oral

Hazardous Component(s):

| Chemical name | CAS-No. | Concentration |
|-------------------|--------------|---------------|
| Mineral oil | Confidential | 30 - 60% |
| Stannous compound | Confidential | 7 - 13% |
| Graphite | 7782-42-5 | 5 - 10% |
| Aluminum compound | Confidential | 3 - 7% |

11.37 %

4.15 %

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

| 4. First-aid measures | |
|-----------------------|--|
| Ingestion: | Rinse mouth thoroughly. Call a Poison Center or doctor if you feel unwell. Do NOT induce vomiting. |
| Inhalation: | Call a Poison Center or doctor if you feel unwell. Move to fresh air. |
| Skin Contact: | Remove contaminated/saturated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention. |
| Eye contact: | Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes. |

Most important symptoms/effects, acute and delayed



| Symptoms: | No data available. | |
|--|--|--|
| Indication of immediate medical a | ttention and special treatment needed | |
| Treatment: | Get medical attention as appropriate or if symptoms persist. | |
| 5. Fire-fighting measures | | |
| General Fire Hazards: | No unusual fire or explosion hazards noted. | |
| Suitable (and unsuitable) extingu | iishing media | |
| Suitable extinguishing media: | Water spray, fog, CO2, dry chemical, or regular foam. Use fire- extinguishing media appropriate for surrounding materials. | |
| Unsuitable extinguishing media: | Do not use water jet as an extinguisher, as this will spread the fire. | |
| Specific hazards arising from the chemical: | Heat may cause the containers to pressurize and possibly rupture. During fire, gases hazardous to health may be formed. | |
| Special protective equipment an | d precautions for firefighters | |
| Special fire fighting procedures: | No data available. | |
| Special protective equipment for fire-fighters: | Firefighters must use standard protective equipment appropriate for industrial fires. | |
| 6. Accidental release measures | 5 | |
| Personal precautions, protective equipment and emergency procedures: | Ventilate closed spaces before entering them. See Section 8 of the SDS for Personal Protective Equipment. Keep upwind. Keep unauthorized personnel away. | |
| Methods and material for containment and cleaning up: | Absorb spill with an inert material, then place in a container for safe and proper disposal. Dike far ahead of larger spill for later recovery and disposal. | |
| Environmental Precautions: | Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so and protect against releases into the environment. Remediate as appropriate. | |



7. Handling and storage

| Precautions for safe handling: | End-users should follow industry best practices for handling and using this product. |
|---|---|
| | Guidance may be found using the current version of ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids |
| | Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. |
| Conditions for safe storage, including any incompatibilities: | Keep container tightly closed. Store locked up. Store in a well-ventilated place. |

8. Exposure controls/personal protection

Exposure Limits

| Chemical name | type | Exposure Limit Values | Source |
|--|------|-----------------------|---|
| Mineral oil - Mist. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |
| Mineral oil - Mist. | STEL | 10 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |
| Stannous compound - as Sn | STEL | 0.2 mg/m3 | US. ACGIH Threshold Limit Values (03 2012) |
| Stannous compound - as Sn | PEL | 0.1 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Graphite - Respirable fraction. | TWA | 2 mg/m3 | US. ACGIH Threshold Limit Values (03 2012) |
| Graphite - Total dust. | PEL | 15 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Graphite - Respirable fraction. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Aluminum compound - Respirable fraction. | TWA | 1 mg/m3 | US. ACGIH Threshold Limit Values (03 2012) |
| Aluminum compound | TWA | 10 mg/m3 | US. ACGIH Threshold Limit Values (03 2014) |
| Aluminum compound - as Al | TWA | 2 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |

Protective Measures:

Good general ventilation should be provided. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.



| Respiratory Protection: | In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards. |
|---------------------------|--|
| Eye Protection: | Wear safety glasses with side shields (or goggles). |
| Skin and Body Protection: | Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information. |
| Hygiene measures: | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing. |

9. Physical and chemical properties

MSDS_US - 00000005269

| Appearance | |
|---|--------------------|
| Physical state: | Liquid |
| Form: | No data available. |
| Color: | Gray |
| Odor: | Mild petroleum |
| Odor threshold: | No data available. |
| pH: | No data available. |
| Melting point/freezing point: | No data available. |
| Initial boiling point and boiling range: | No data available. |
| Flash Point: | 149 °C (300 °F) |
| Evaporation rate: | No data available. |
| Flammability (solid, gas): | No data available. |
| Upper/lower limit on flammability or explosive limits | |
| Flammability limit - upper (%): | No data available. |
| Flammability limit - lower (%): | No data available. |
| Explosive limit - upper (%): | No data available. |
| Explosive limit - lower (%): | No data available. |
| Vapor pressure: | No data available. |
| Vapor density: | No data available. |
| Relative density: | 0.9 |
| Solubility(ies) | |
| Solubility in water: | Insoluble |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |
| Auto-ignition temperature: | No data available. |
| Decomposition temperature: | No data available. |



| Viscosity: | 122 mm2/s (40 °C) | |
|--|---|--|
| Other information VOC: | 96.25 g/l | |
| 10. Stability and reactivity | | |
| Reactivity: | Not reactive during normal use. | |
| Chemical Stability: | No data available. | |
| Possibility of Hazardous Reactions: | None under normal conditions. | |
| Conditions to Avoid: | Avoid heat or contamination. | |
| Incompatible Materials: | No data available. | |
| Hazardous Decomposition Products: | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. | |
| 11. Toxicological information | | |
| Information on likely routes of ex Ingestion: | posure May be ingested by accident. Ingestion may cause irritation and malaise. | |
| Inhalation: | Harmful if inhaled. | |
| Skin Contact: | Prolonged skin contact may cause redness and irritation. | |
| Eye contact: | Eye contact is possible and should be avoided. | |
| Symptoms related to the physica Ingestion: | I, chemical and toxicological characteristics No data available. | |
| Inhalation: | No data available. | |
| Skin Contact: | No data available. | |
| Eye contact: | No data available. | |
| Information on toxicological effect | cts | |
| Acute toxicity (list all possible | routes of exposure) | |
| Oral Product: | ATEmix (): 2000 - 5000 mg/kg | |



| Product: | ATEmix (): 2000 - 5000 mg/kg |
|--|---|
| Inhalation Product: | ATEmix (, 4 h): 1 - 5 mg/l Dusts, mists and fumes |
| Repeated dose toxicity Product: | No data available. |
| Skin Corrosion/Irritation Product: | No data available. |
| Serious Eye Damage/Eye Irritation Product: No data available. | |
| Respiratory or Skin Sensitization Product: | on No data available. |
| Carcinogenicity Product: | No data available. |
| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified | |
| US. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified | |
| US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): No carcinogenic components identified | |
| Germ Cell Mutagenicity | |
| In vitro Product: | No data available. |
| In vivo Product: | No data available. |
| Reproductive toxicity Product: | No data available. |
| Specific Target Organ Toxicity Product: | - Single Exposure No data available. |
| Specific Target Organ Toxicity Product: | - Repeated Exposure No data available. |
| Aspiration Hazard Product: | No data available. |
| Other effects: MSDS_US - 00000005269 | No data available. |



| This product has not been evaluated for ecological toxicity or other environmental effects. |
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| S |
| Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied. |
| Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| |

This material is not subject to transport regulations.

15. Regulatory information

US Federal Regulations

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

16.Other information, including date of preparation or last revision



| Revision Date: | 27.05.2015 |
|----------------------|---|
| Version #: | 1.0 |
| Further Information: | No data available. |
| Disclaimer: | This information is provided without warranty . The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. |