

SAFETY DATA SHEET

1. Identification

| Product name | LUBRODAL FC 331 DX |
|-------------------------------|---------------------|
| 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: | sds@fuchsus.com |
| | 505@10011505.00111 |

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

2. Hazard(s) identification

Hazard Classification

Health Hazards

| Skin Corrosion/Irritation | Category 2 |
|-----------------------------------|-------------|
| Serious Eye Damage/Eye Irritation | Category 2A |
| Carcinogenicity | Category 1A |

Label Elements

Hazard Symbol:



Signal Word:

Danger



| Hazard Statement: | Causes | s skin irritation. s serious eye irritation. use cancer. |
|----------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautionary Statements | | |
| Prevention: | clothing use. Do | horoughly after handling. Wear protective gloves/protective g/eye protection/face protection. Obtain special instructions before o not handle until all safety precautions have been read and tood. Use personal protective equipment as required. |
| Response: | contact persists water/s or conc | YES: Rinse cautiously with water for several minutes. Remove lenses, if present and easy to do. Continue rinsing. If eye irritation s: Get medical advice/attention. IF ON SKIN: Wash with plenty of loap If skin irritation occurs: Get medical advice/attention. IF exposed erned: Get medical advice/attention. Specific treatment (see in t SDS). Take off contaminated clothing. |
| Storage: | Store lo | ocked up. |
| 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, oral | | 0.16 % |
| Acute toxicity, dermal | | 2.31 % |
| Acute toxicity, inhalation, | vapor | 31.28 % |
| Acute toxicity, inhalation, or mist | dust | 30.89 % |
| 3. Composition/information on | ingred | ients |

Hazardous Component(s):

| Chemical name | CAS-No. | Concentration |
|------------------------------------------------------------------|--------------|---------------|
| Graphite | 7782-42-5 | 20 - 50% |
| Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt | 9084-06-4 | 1 - 5% |
| Inorganic silicate compound | Confidential | 1 - 3% |
| Crystalline silica | 14808-60-7 | 0.1 - 1% |

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



| Ingestion: | Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation: | Move to fresh air. Call a POISON CENTER/doctor if you feel unwell. |
| Skin Contact: | Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention. |
| Eye contact: | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. |
| Most important symptoms/effect | s, acute and delayed |
| Symptoms: | No data available. |
| Indication of immediate medical a | ttention and special treatment needed |
| Treatment: | Symptoms may be delayed. |
| 5. Fire-fighting measures | |
| General Fire Hazards: | No unusual fire or explosion hazards noted. |
| Suitable (and unsuitable) exting | uishing 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 explode. During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | |
| Special fire fighting procedures: | No data available. |
| Special protective equipment for fire-fighters: | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| | |

6. Accidental release measures



| Personal precautions, protective equipment and emergency procedures: | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methods and material for containment and cleaning up: | Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. 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. |
| 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 Contains amines. Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Wash hands thoroughly after handling. Add material slowly when mixing with water. Do not add water to the material; instead, add the material to the water. Avoid contact with skin. |
| Conditions for safe storage, | Store locked up. |

Conditions for safe storage, including any incompatibilities:



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8. Exposure controls/personal protection

Exposure Limits Chemical name **Exposure Limit Values** Source Type TWA Graphite - Respirable fraction. 2 mg/m3 US. ACGIH Threshold Limit Values (03 2012) Graphite - Total dust. PEL US. OSHA Table Z-1 Limits for Air 15 mg/m3 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) Graphite TWA 15 millions of US. OSHA Table Z-3 (29 CFR 1910.1000) particles per cubic (2000)foot of air US. ACGIH Threshold Limit Values (03 Crystalline silica - Respirable fraction. TWA 0.025 mg/m3 2012) Crystalline silica - Respirable. TWA 2.4 millions of US. OSHA Table Z-3 (29 CFR 1910.1000) particles per cubic (2000)foot of air Crystalline silica - Respirable. TWA 0.1 mg/m3 US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) Crystalline silica - Respirable dust. PEL 0.05 mg/m3 US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03

Protective Measures: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. **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. Always observe good personal hygiene measures, such as washing after Hygiene measures: handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties



Appearance Physical state: liquid Form: No data available. Color: Black Odor: Mild Odor threshold: No data available. pH: 11 Melting point/freezing point: No data available. Initial boiling point and boiling range: No data available. Flash Point: Not applicable **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. No data available. Explosive limit - lower (%): No data available. Vapor pressure: Vapor density: No data available. **Relative density:** 1.177 Solubility(ies) Soluble Solubility in water: 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: > 2 mm2/s (40 °C)

10. Stability and reactivity

| Reactivity: | Not reactive during normal use. |
|--------------------------------------|-------------------------------------------------------------------------------------------------|
| Chemical Stability: | Material is stable under normal conditions. |
| 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 e Ingestion: | xposure May be harmful if swallowed. |
|-------------------------------------------------|----------------------------------------------------------------------|
| Inhalation: | Harmful if inhaled. |
| Skin Contact: | Causes skin irritation. |
| Eye contact: | Causes serious eye irritation. |
| Symptoms related to the physic Ingestion: | al, chemical and toxicological characteristics No data available. |
| Inhalation: | No data available. |
| Skin Contact: | No data available. |
| Eye contact: | No data available. |
| Information on toxicological effe | ects |
| Acute toxicity (list all possible | e routes of exposure) |
| Oral Product: | ATEmix (): > 5000 mg/kg |
| Dermal Product: | Not classified for acute toxicity based on available data. |
| Inhalation Product: | Not classified for acute toxicity based on available data. |
| Repeated dose toxicity Product: | No data available. |
| Skin Corrosion/Irritation Product: | No data available. |
| Serious Eye Damage/Eye Irritat Product: | ion No data available. |
| Respiratory or Skin Sensitization Product: | n No data available. |
| Carcinogenicity Product: | No data available. |



| IARC Monographs on the | Evaluation of Carcinogenic Risks to Humans: |
|-------------------------------------------------|---------------------------------------------------------------------------------------------|
| Crystalline silica | Overall evaluation: 1. Carcinogenic to humans. |
| | |
| US. National Toxicology P Crystalline silica | Program (NTP) Report on Carcinogens: Known To Be Human Carcinogen. |
| US. OSHA Specifically Re | gulated Substances (29 CFR 1910.1001-1050): |
| Crystalline silica | Cancer |
| 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: | No data available. |
| 12. Ecological information | |
| General information: | This product has not been evaluated for ecological toxicity or other environmental effects. |
| 13. Disposal considerations | |



Contaminated Packaging:

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

15. Regulatory information

US Federal Regulations

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

Crystalline silica

kidney effects lung effects immune system effects Cancer

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards Delayed (Chronic) Health Hazard Skin Corrosion or Irritation Serious eye damage or eye irritation Carcinogenicity

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



This product can expose you to chemicals includingCrystalline silicaFormaldehydewhich is [are] known to the State of California to cause cancer.

Methanolwhich is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



| 16.Other information, including date of preparation or last revision | | |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Issue Date: | 30.10.2018 | |
| Revision Date: | 23.10.2018 | |
| Version #: | 1.4 | |
| Further Information: | No data available. | |
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