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SAFETY DATA SHEET

1. Identification

Product name LUBRODAL E 4175

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

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

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin sensitizer	Category 1
Toxic to reproduction	Category 2

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.



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Precautionary Statements

- Prevention:** Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
- Response:** IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse.
- Storage:** Store locked up.
- Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

Unknown toxicity - Health

Acute toxicity, oral	32.34 %
Acute toxicity, dermal	10.68 %
Acute toxicity, inhalation, vapor	74.15 %
Acute toxicity, inhalation, dust or mist	76.88 %

3. Composition/information on ingredients

Hazardous Component(s):

Chemical name	CAS-No.	Concentration
Mineral oil	Confidential	50 - <80%
Graphite	7782-42-5	5 - <10%
Triethanolamine	102-71-6	1 - <5%
Aluminum compound	Confidential	1 - <5%
Stannous compound	Confidential	1 - <5%
2-Ethylhexanoic acid	149-57-5	0.1 - <1%
1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-	112-57-2	0.1 - <1%
Borate salt	Confidential	0.1 - <1%
Sulfonate	Confidential	0.1 - <1%

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



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4. First-aid measures

Ingestion:	Rinse mouth thoroughly. Call a POISON CENTER/doctor/.../if you feel unwell. Do NOT induce vomiting.
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.
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.
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Indication of immediate medical attention and special treatment needed

Treatment:	Get medical attention if symptoms occur.
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5. Fire-fighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.
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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO ₂ , 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.
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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



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**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 with sand or other inert absorbent. Stop the flow of material, if this is without risk.

Environmental Precautions:

Avoid release to the environment. 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. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. 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. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.

**Conditions for safe storage,
including any
incompatibilities:**

Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials. Store locked up.



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8. Exposure controls/personal protection

Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Mineral oil - Mist.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Mineral oil - Mist.	STEL	10 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Graphite - Respirable fraction.	TWA	2 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Graphite - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Graphite - Respirable fraction.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Graphite	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Triethanolamine	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Aluminum compound - Respirable fraction.	TWA	1 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Aluminum compound	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values (03 2014)
Aluminum compound - as Al	TWA	2 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Stannous compound - as Sn	STEL	0.2 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Stannous compound - as Sn	PEL	0.1 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
2-Ethylhexanoic acid - Inhalable fraction and vapor.	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Borate salt - Inhalable fraction.	STEL	6 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Borate salt - Inhalable fraction.	TWA	2 mg/m ³	US. ACGIH Threshold Limit Values (03 2012)
Borate salt - Inhalable fraction.	STEL	6 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
Borate salt - Inhalable fraction.	TWA	2 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)

Protective Measures:

Use personal protective equipment as required.

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



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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:

Gray

Odor:

Mild petroleum/solvent

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:

0.95

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:

> 21 mm²/s (40 °C)

Other information

VOC:

120.79 g/l

10. Stability and reactivity

Reactivity:

Not reactive during normal use.



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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 exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Prolonged skin contact may cause redness and irritation. May cause an allergic skin reaction.
Eye contact:	Eye contact is possible and should be avoided.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	ATEmix (): > 5000 mg/kg
Dermal Product:	ATEmix (): 2000 - 5000 mg/kg
Inhalation Product:	Not classified for acute toxicity based on available data.

Repeated dose toxicity



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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: May cause an allergic skin reaction.

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: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects:

Components may cause a risk to the following :
kidney damage liver damage



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12. Ecological information

General information: This product has not been evaluated for ecological toxicity or other environmental effects.

13. Disposal considerations

Disposal instructions: 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.

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)
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard

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.



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

Issue Date: 07.12.2016

Revision Date: 07.12.2016

Version #: 1.1

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.