



To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrant or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

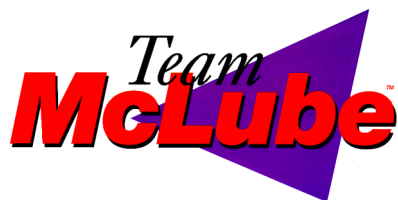
The OSHA Hazard Communication Standard (in the United States)
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team
Zep Inc.



SAFETY DATA SHEET

Issue Date 2003 03 01

Revision Date 2015 07 07

Version 6.11

1. IDENTIFICATION

Product identifier

Product Name McLUBE MoS2-400

Other means of identification

Product Code MOS2-400
Synonyms Mixture

Recommended use of the chemical and restrictions on use

Recommended Use Petroleum Grease with Molybdenum Disulfide.

Uses advised against

Details of the supplier of the safety data sheet

Manufacturer Address McGee Industries, Inc.
9 Crozerville Rd
P.O. Box 2425
Aston, PA 19014

E-mail address info@mclube.com

Emergency telephone number

Company Phone Number 1-800-262-5823 (Within US)
1-610-459-1890

Emergency Telephone CHEMTREC:
1-800-424-9300 (Within US)
1-703-527-3887 (Outside US)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is not considered hazardous. This information is supplied under the OSHA Hazard Communication Standard (29 CFR 1910.1200), and is offered in good faith based on data available to us that we believe to be true and accurate.

Label elements

Emergency Overview

Appearance Blue-gray to black	Physical state Semi-solid	Odor Bland
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Precautionary Statements - Prevention

P262: Do not get in eyes, on skin, or on clothing
P264: Wash skin thoroughly after handling
P280: Wear protective gloves and eye / face protection

Precautionary Statements - Response

P302 + P352: IF ON SKIN: Wash with plenty of soap and water

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing

P337 + P313: If eye irritation persists: Get medical advice/attention

P301 + P330: IF SWALLOWED: Rinse mouth

P391: Collect spillage

Precautionary Statements - Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

P501: Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

Not applicable

Mixture**Synonyms**

Mixture.

Chemical nature

Petroleum Grease with Molybdenum Disulfide

Component Information:

Chemical Name	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Petroleum distillates, solvent dewaxed heavy paraffinic - DMOS-extract < 3%	64742-65-0	85.0-90.0	Asp. Tox. 1, H304
Lithium 12-hydroxystearate	7620-77-1	5.0-10.0	
Molybdenum disulfide	1317-33-5	1.0-5.0	
Antimony Diamyldithiocarbamate	15890-25-2	1.0-5.0	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Aquatic Chronic 2 (H411)

The exact percentage (concentration) of composition has been withheld as a trade secret.

Amounts listed are typical and do not represent a specification. Remaining components are proprietary, nonhazardous, and/or present at amounts below reportable limits.

For the full text of the Classifications and Hazard Statements mentioned in this Section, see Section 16

Mineral Oil may be substituted with one or more of the following CAS#: 64741-88-4, 64741-89-5, 64741-44-2, 64741-69-4, 64741-97-5, 64742-46-7, 64742-52-5, 64742-53-6, 64742-55-8, 64742-56-9, 64742-62-7, 64742-65-0, 72623-65-0, 72623-84-8, 72623-85-9, 72623-86-0, 72623-87-1, 69029-75-0, 64742-01-4, and 64741-95-3.

The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346

4. FIRST AID MEASURES

Description of first aid measures

General advice	Use first aid treatment according to the nature of the injury. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt, seek medical advice.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists: Get medical advice/attention.
Skin contact	Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
Inhalation	Not an expected route of exposure. If symptoms persist, call a physician.
Ingestion	Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Potential for aspiration if swallowed. Clean mouth with water. Get medical attention if symptoms occur.
Self-protection of the first aider	Use personal protection recommended in Section 8.

Most important symptoms and effects, both acute and delayed

Symptoms	Irritating to eyes. Irritating to skin.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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 and toxic gases and vapors.

Hazardous combustion products

Carbon oxides. Oxides of sulfur. Molybdenum trioxide.

Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes and skin. Remove all sources of ignition.

Other Information Extremely slippery when spilled.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Collect spillage. Do not flush into surface water or sanitary sewer system.

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 spilled material with shovels into a suitable container for recycle or disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines****Components with Workplace Control Parameters:**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Petroleum distillates, solvent dewaxed heavy paraffinic - DMOS-extract < 3% 64742-65-0	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³	-
Molybdenum disulfide 1317-33-5	TWA: 10 mg/m ³ Mo inhalable fraction TWA: 3 mg/m ³ Mo respirable fraction	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ Mo	IDLH: 5000 mg/m ³ Mo
Antimony Diamyldithiocarbamate 15890-25-2	TWA: 0.5 mg/m ³ Sb	TWA: 0.5 mg/m ³ Sb (vacated) TWA: 0.5 mg/m ³ Sb	IDLH: 50 mg/m ³ Sb TWA: 0.5 mg/m ³ Sb

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection	Wear protective gloves and protective clothing.
Respiratory protection	Provide adequate ventilation.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Semi-solid
Appearance	Blue-gray to black
Color	Blue-gray to black
Odor	Bland
Odor threshold	No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	
Melting point/freezing point	No data available	
Boiling point / boiling range	371 °C / 700 °F	
Flash point	232 °C / 450 °F	ASTM D92
Evaporation rate	No data available	
Flammability (solid, gas)	No data available	
Flammability Limit in Air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	
Vapor density	No data available	
Specific Gravity	0.90	g/ml @ 20°C
Water solubility	Insoluble in water	
Solubility in other solvents	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	No data available	
Dynamic viscosity	No data available	
Explosive properties	Not applicable	
Oxidizing properties	No data available	

Other Information

Softening point	No data available	
Molecular weight	No data available	
VOC Content (%)	No data available	
Density	7.51	lbs./gal.
Bulk density	No data available	

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	Stable
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Chemical stability

<u>Stability</u>	Stable
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<u>Hazardous polymerization</u>	Hazardous polymerization does not occur.
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<u>Conditions to avoid</u>	Excessive heat.
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Incompatible materials Strong oxidizing agents.

Hazardous Decomposition Products Carbon oxides. Oxides of sulfur. Molybdenum trioxide.

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
Inhalation	Not an expected route of exposure.
Eye contact	May cause slight irritation.
Skin contact	May cause irritation.
Ingestion	Not an expected route of exposure.

Component Information:

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Molybdenum disulfide 1317-33-5	-	-	> 2820 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms	Skin: Irritation, redness, itchiness Eyes: Irritation, redness, watering, itchiness
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Petroleum distillates, solvent dewaxed heavy paraffinic - DMOS-extract < 3% 64742-65-0	A2	Group 1	-	X

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Marine pollutant No.

Ecotoxicity The environmental impact of this product has not been fully investigated

Component Information:

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Petroleum distillates, solvent dewaxed heavy paraffinic - DMOS-extract < 3% 64742-65-0	-	5000: 96 h Oncorhynchus mykiss mg/L LC50	1000: 48 h Daphnia magna mg/L EC50

<u>Persistence and degradability</u>	No information available.
<u>Bioaccumulation</u>	No information available.
<u>Mobility</u>	The product is insoluble and floats on water.
<u>Other adverse effects</u>	No information available

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	Do not reuse container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	California Hazardous Waste Status
Antimony Diamyldithiocarbamate 15890-25-2	Toxic

14. TRANSPORT INFORMATION

<u>DOT</u>	Not Regulated
<u>ICAO (air)</u>	Not Regulated
<u>IATA</u>	Not Regulated
<u>IMDG</u>	Not Regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

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

Chemical Name	SARA 313 - Threshold Values %
Antimony Diamyldithiocarbamate - 15890-25-2	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Antimony Diamyldithiocarbamate 15890-25-2	-	X	-	-

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).

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Molybdenum disulfide 1317-33-5	X	X	X
Antimony Diamyldithiocarbamate 15890-25-2	X	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 0	Flammability 1	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

Key to Classifications and Hazard Statements contained in Sections 2 and 3

Asp. Tox. 1 (H304): May be fatal if swallowed and enters airways; Aspiration, Cat 1

Acute Tox. 4 (H302): Harmful if swallowed; Acute toxicity, oral, Cat 4

Acute Tox. 4 (H332): Harmful if inhaled; Acute Toxicity, Inhalation, Cat 4

Aquatic Chronic 2 (H411): Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2

Issue Date 2003 03 01

Revision Date 2015 07 07

Revision Note

2003 03 01: Initial release

2006 03 06: Modified to conform to 16 part format of ANSI Standard Z400.1-2004.

2007 05 16: Modified to correct environmental and ecological hazards identifications.

2010 04 15: Modified to update expiring issue date.

2013 03 15: Modified to update expiring issue date.

2015 06 07: Modified to conform to 29 CFR 1910 (OSHA HCS).

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. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

End of Safety Data Sheet