




Prepared according to Global Harmonized System (GHS) standards.

1	Substance/Product Identification
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The Lubrizol Corporation
 29400 Lakeland Boulevard
 Wickliffe, Ohio 44092
 Tel: (440) 943-4200

Product Trade Name	FZ1503AX
CAS Number	Not applicable for mixtures.
Synonyms	None.
Generic Chemical Name	Mixture.
Recommended Use	Multipurpose.
Restrictions on use	Not determined.
Created Date	20 December 2011
Preparation/Revision Date	22 August 2013
Transportation Emergency Phone No.	FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)
MSDS No.	23460517-2221528-4019331-102103

2	Hazards Identification
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Appearance	Dark amber colored liquid.
Odor	Mild
Classification	Sensitization - skin category 1B Hazardous to the aquatic environment (chronic hazard) category 4
Target Organs	Not determined.
Symbol(s)	
Signal Word	Warning.
Hazard statement	May cause an allergic skin reaction. May cause long lasting harmful effects to aquatic life.
Other Hazards	None identified.
Precaution(s)	Avoid breathing dust / fume / gas / mist / vapors / spray. Wear protective gloves. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
Storage Procedures	Store away from oxidizers.
Disposal	All disposal practices must be in accordance with local, national and international regulations.

See Section 11 for complete health hazard information.

3	Composition/Information on Ingredients
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Hazardous Ingredients

Comp	CAS No.	Percentage (by wt.)	Carcinogen
Hydrocarbon polymer	Confidential.	From 20 to 29.9 percent	N/E
Borate ester	Confidential.	From 0.5 to 1.5 percent	N/E

4	First Aid Measures
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Eyes	Rinse cautiously with water for 20 minutes or until chemical is removed. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical attention.
Skin	Wash with plenty of soap and water. Remove contaminated clothing. If skin irritation or rash occurs: Get medical attention.

Laundry contaminated clothing before reuse.

Inhalation

Remove exposed person to fresh air if adverse effects are observed. If irritation persists or if toxic symptoms are observed, get medical attention.

Ingestion

Do NOT induce vomiting. Never give anything by mouth to a person who is losing consciousness, unconscious or convulsing. Immediately call a poison center or doctor if you feel unwell.

Advice for the protection of first-aid providers

When providing first aid always protect yourself against exposure to chemicals or blood born diseases by wearing gloves, masks and eye protection. After providing first aid wash your exposed skin with soap and water.

Additional Information

Note to physician: Treat symptomatically.

5	Fire Fighting Measures
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Flash Point

197 °C, 386.6 °F PMCC (Typical)

Extinguishing Media

CO2, dry chemical, foam, water spray, water fog. Water can be used to cool and protect exposed material.

Unsuitable Extinguishing Media

Not determined.

Firefighting Procedures

Recommend wearing self-contained breathing apparatus. Do not use a water jet. Use water to cool containers exposed to fire. A solid stream of water will spread the burning material. Spills produce extremely slippery surfaces. Do not release chemically contaminated water into drains, soil or surface water.

Unusual Fire & Explosion Hazards

Burning may produce irritating, toxic and obnoxious fumes. Container may rupture in a fire situation. DO NOT USE a solid stream of water. See section 10 for additional information.

6	Accidental Release Measures
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Personal precaution, protective equipment and emergency procedures

Only trained personnel should be permitted in area. Do not touch or walk through spilled material. Personal protective equipment must be worn. Ventilate area if spilled in a confined space or other poorly ventilated area. Material on floor may be slippery.

Environmental precaution and protective procedures.

Take precautions to avoid release to the environment. Do not flush into surface water, sanitary sewer or ground water system.

Methods for clean-up and removal

Pick up free liquid for recycle and/or disposal. Pump any free liquid into an appropriate closed container. Residual liquid can be absorbed on inert material. Place in metal containers for recovery or disposal.

7	Handling and Storage
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Pumping Temperature

Ambient

Maximum Handling Temperature

70 °C, 158 °F

Handling Procedures

Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. When handling, do not eat, drink, or smoke. Avoid breathing dust, fume, gas, mist, vapors or spray. Ground and bond containers when transferring material. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Laundry contaminated clothing before reuse. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Maximum Storage Temperature

45 °C, 113 °F

Storage Procedures

Store separately from oxidizers. Take precautions to avoid release to the environment. Store in a dry, well-ventilated place. Store separately from incompatible materials. Keep container tightly closed. Containers which are open must be carefully resealed and kept upright to prevent leakage. Do not store in open, unlabeled or mislabeled containers. See section 10 for incompatible materials.

Maximum Loading Temperature

70 °C, 158 °F

8	Exposure Controls/Personal Protection
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Exposure Limits**EU**

Not applicable.

UK

Not applicable.

Ireland

Not applicable.

India

Not applicable.

Cyprus

Not applicable.

Other Exposure Limits	Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH TWA of 5 mg per cubic meter.
Engineering Controls	Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.
Personal Protective Equipment	
Respiratory Protection	Under normal use conditions, respirator is not usually required. Use disposable dust/mist mask if the recommended exposure limit is exceeded.
Eye Protection	Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.
Gloves Procedures	Consult clothing/glove manufacturer to determine appropriate type of glove for given situation. Gloves should always be inspected before each use and discarded if they show tears, pinholes, or signs of wear.
Clothing Recommendation	Long sleeve shirt is recommended. Wear a chemically protective apron when contact with material may occur. Use chemically protective boots when necessary to avoid contaminating shoes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction. Launder contaminated clothing before reuse.
Hygiene Measures	Wash thoroughly after handling this product. Do not eat, drink or smoke when using this product.

9	Physical and Chemical Properties
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Flash Point	197 °C, 386.6 °F PMCC (Typical)
Upper Flammable Limit	Not determined.
Lower Flammable Limit	Not determined.
Autoignition Point	Not determined.
Decomposition Temperature	Not determined.
Explosion Data	Material does not have explosive properties.
Vapor Pressure	Not determined.
pH	Not determined.
Specific Gravity	0.85 (15.6 °C)
Bulk Density	7.06 Lb/gal, 0.85 Kg/L
Water Solubility	Insoluble.
Percent Solid	Not determined.
Percent Volatile	Not determined.
Volatile Organic Compound	Not determined.
Vapor Density	Not determined.
Evaporation Rate	Not determined.
Water/Octanol Coefficient	Not determined.
Odor	Mild
Odor Threshold	Not determined.
Appearance	Dark amber colored liquid.
Viscosity	138 Centistokes (25 °C) 70 Centistokes (40 °C) 12 Centistokes (100 °C)
Boiling Point	Not determined.
Boiling Point Range	Not determined.
Pour Point Temperature	-39 °C, -38 °F
Melting / Freezing Point	Not determined.

The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.

10	Stability and Reactivity
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Stability	Material is normally stable at moderately elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Incompatibility	Strong oxidizing agents. Nitrates Peroxides. Chlorates
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released.
Conditions to Avoid	Do not expose to excessive heat, ignition sources, or oxidizing materials.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Not expected to cause eye irritation. Based on data from components or similar materials.
Skin Irritation	Not expected to be a primary skin irritant. Based on data from components or similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
Respiratory Irritation	If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from similar materials.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.
Inhalation Toxicity	No data available to indicate product or components may be a toxic inhalation hazard.
Oral Toxicity	The LD50 in rats is > 10,000 mg/Kg. Based on data from components or similar materials. Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in pulmonary edema and chemical pneumonitis.
Dermal Sensitization	May cause skin sensitization. Based on data from components or similar materials.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.
Aspiration Hazard	Not determined.

-- CHRONIC EXPOSURE --

Chronic Toxicity	No data available to indicate product or components present at greater than 1% are chronic health hazards.
Carcinogenicity	This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
Teratogenicity	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

-- ADDITIONAL INFORMATION --

Other	No other health hazards known.
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12	Ecological Information
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-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity	Not determined.
Freshwater Invertebrates Toxicity	Not determined.
Algal Inhibition	Not determined.
Saltwater Fish Toxicity	Not determined.
Saltwater Invertebrates Toxicity	Not determined.
Bacteria Toxicity	Not determined.
Miscellaneous Toxicity	Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation	At least 25% of the components in this product show moderate biodegradation based on OECD 301-type test data
Bioaccumulation	25% or greater of the components potentially bioconcentrate, based on octanol/water coefficients.
Soil Mobility	Not determined.
Notes	None known.

13	Disposal Considerations
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Disposal Considerations	All disposal practices must be in accordance with local, regional, national and international regulations. Do not dispose in landfill.
Contaminated Containers or Packaging	Empty container retains product residue and can be hazardous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity, or other sources of ignition. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

14	Transport Information
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ICAO/IATA I	Not regulated.
ICAO/IATA II	Not regulated.
IMDG	Not regulated.
IMDG EMS Fire	Not applicable.
IMDG EMS Spill	Not applicable.
IMDG MFAG	Not applicable.
MARPOL Annex II	Not determined.
USCG Compatibility	Not determined.

Review classification requirements before shipping materials at elevated temperatures.

15	Regulatory Information
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-- Global Chemical Inventories --

USA	All components of this material are on the US TSCA Inventory or are exempt.
Other TSCA Reg.	None known.
EU	To obtain information on the REACH compliance status of this product, please visit Lubrizol.com/REACH , or e-mail us at REACH_MSDS_INQUIRIES@Lubrizol.com
Japan	All components are in compliance with the Chemical Substances Control Law of Japan.
Australia	All components are in compliance with chemical notification requirements in Australia.
New Zealand	This product requires notification before sale in New Zealand.
Canada	All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.
Switzerland	This product requires notification before sale in Switzerland.
Korea	All components are in compliance in Korea.
Philippines	All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
China	This product requires notification in China.
Taiwan	May require notification before sale in Taiwan.
Miscellaneous Regulatory Information	Not determined.

-- Other U.S. Federal Regulations --

SARA Ext. Haz. Subst.	This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.								
SARA Section 313	This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA Section 313.								
SARA 311 Classifications	<table border="1"> <tr> <td>Acute Hazard</td> <td>Yes</td> </tr> <tr> <td>Chronic Hazard</td> <td>No</td> </tr> <tr> <td>Fire Hazard</td> <td>No</td> </tr> <tr> <td>Reactivity Hazard</td> <td>No</td> </tr> </table>	Acute Hazard	Yes	Chronic Hazard	No	Fire Hazard	No	Reactivity Hazard	No
Acute Hazard	Yes								
Chronic Hazard	No								
Fire Hazard	No								
Reactivity Hazard	No								
CERCLA Hazardous Substances	None known.								

-- State Regulations --

Cal. Prop. 65	This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.
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-- Product Registrations --

U.S. Fuel Registration	Not applicable.
Finnish Registration Number	Not Registered
Swedish Registration Number	Not Registered
Norwegian Registration Number	Not Registered
Danish Registration Number	Not Registered
Swiss Registration Number	Not Registered
Italian Registration Number	Not Registered

-- Other / International --

Miscellaneous Regulatory Information	Not determined.
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16	Other Information
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Issuing Department	Product Safety and Compliance Department (440-943-1200)
Created Date	20 December 2011
Preparation/Revision Date	22 August 2013

US NFPA Codes	<table border="1"> <thead> <tr> <th>Health</th> <th>Fire</th> <th>Reactivity</th> <th>Special</th> </tr> </thead> <tbody> <tr> <td align="center">2</td> <td align="center">1</td> <td align="center">1</td> <td align="center">N/E</td> </tr> </tbody> </table>	Health	Fire	Reactivity	Special	2	1	1	N/E
Health	Fire	Reactivity	Special						
2	1	1	N/E						

HMIS Codes

Health	Fire	Reactivity
2	1	1

Revision Indicators

This MSDS has no revisions since 22 August 2013

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