Material Safety Data Sheet
FZ1400AX

Prepared according to Global Harmonized System (GHS) standards.

1 Substance/Product Identification

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Product Trade Name	**FZ1400AX**
CAS Number	Not applicable for mixtures.
Synonyms	None.
Generic Chemical Name	Mixture.
Recommended Use	Multipurpose.
Restrictions on use	Not determined.
Created Date	01 November 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.	23460777-8221328-1052311-102103

2 Hazards Identification

Appearance	Brown colored liquid.
Odor	Mild
Classification	Hazardous to the aquatic environment (acute hazard) category 3
Target Organs	Not determined.
Signal Word	Not determined.
Hazard statement	Harmful to aquatic life.
Other Hazards	None identified.
Precaution(s)	Avoid release to the environment.
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

Hazardous Ingredients

Comp	CAS No.	Percentage (by wt.)	Carcinogen
Zinc alkyldithiophosphate	84605-29-8	From 0.5 to 1.5 percent	N/E
Alkylated phenol	Confidential.	From 0.1 to 0.9 percent	N/E

4 First Aid Measures

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 soap and water. Remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse.
Inhalation	Remove exposed person to fresh air if adverse effects are observed. If experiencing respiratory symptoms call a poison center or doctor.
Ingestion	DO NOT INDUCE VOMITING. Get immediate medical attention.
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

Flash Point	220 °C, 428 °F COC (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 direct a solid stream of water on spilled material. Use flooding amounts of water as a fog. Use water to cool containers exposed to fire. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. Do not release chemically contaminated water into drains, soil or surface water.
Unusual Fire & Explosion Hazards	Elevated temperatures can lead to the formation of irritating fumes and vapors. Container may rupture on heating. DO NOT USE a solid stream of water. Burning may produce irritating, toxic and obnoxious fumes. See section 10 for additional information.

6 Accidental Release Measures

Personal precaution, protective equipment and emergency procedures	Only trained personnel should be permitted in area. Personal protective equipment must be worn. Avoid contact with skin, eyes or clothing. Ventilate area if spilled in a confined space or other poorly ventilated area. Material on floor may be slippery.
Environmental precaution and protective procedures.	Material will float on water. 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	Shut off leak if without risk. Use non-sparking tools. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Small spills: contain spilled material. Transfer to secure containers. Where necessary collect using absorbent media. Larger spills: stop spill and dike area to prevent spreading, pump liquid to salvage tank. remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers.

7 Handling and Storage

Pumping Temperature	Ambient
Maximum Handling Temperature	70 °C, 158 °F
Handling Procedures	Use with adequate ventilation. 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. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Avoid overheating. Wash thoroughly after handling. Launder 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	Keep material away from heat, sparks, pilot lights, static electricity and open flame. Store separately from oxidizers. Take precautions to avoid release to the environment. Store in a cool, dry, well-ventilated area. Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store separately from incompatible materials. 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

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	Material should be handled in enclosed vessels and equipment, in which case general (mechanical) room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air.

Personal Protective Equipment

Respiratory Protection	Use half mask respirator with an organic vapor cartridge if exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.
Eye Protection	Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.
Gloves Procedures	Nitrile. 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. When working with heated material, wear heat protective clothing. 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.

9 Physical and Chemical Properties

Flash Point	220 °C, 428 °F COC (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	0.87 (15.6 °C)
Bulk Density	7.28 Lb/gal, 0.87 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	Brown colored liquid.
Viscosity	135 Centistokes (25 °C) 65 Centistokes (40 °C) 10.3 Centipoise (100 °C)
Boiling Point	Not determined.
Boiling Point Range	Not determined.
Pour Point Temperature	-42 °C, -44 °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

Stability	Material is normally stable at room temperature and pressure. See the Handling and Storage Section for further details.
Decomposition Temperature	Not determined.
Incompatibility	Oxidizing agents.
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. Nitrogen oxides.
Conditions to Avoid	Do not expose to excessive heat, ignition sources, or oxidizing materials. High temperatures.

11 Toxicological Information

-- ACUTE EXPOSURE --

Eye Irritation	Not expected to cause eye irritation. Based on data from similar materials.
Skin Irritation	Not expected to be a primary skin irritant. Based on data from 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 components or 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.
Dermal Sensitization	No data available to indicate product or components may be a skin sensitizer.
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	This product contains para-dodecylphenol. Rats given high, repeated daily doses of para-dodecylphenol by oral intubation experienced adverse reproductive effects. The relevance of these effects to humans is uncertain.
Teratogenicity	This product contains para-dodecylphenol. Pregnant rats given high, repeated daily doses of para-dodecylphenol by oral intubation gave birth to pups with cleft palate and skeletal malformations. The relevance of these effects to humans is uncertain.

-- ADDITIONAL INFORMATION --

Other	No other health hazards known.

12 Ecological Information

-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity	The acute LC50 is 100 - 1000 mg/L based on component data.
Freshwater Invertebrates Toxicity	The acute EC50 is 10 - 100 mg/L based on component data. Chronic effects expected at 1 - 10 mg/L based on component data.
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. At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test data.
Bioaccumulation	Less than 1.0% of the components potentially bioconcentrate, based on octanol/water coefficients.
Soil Mobility	Not determined.
Notes	None known.

13 Disposal Considerations

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

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.
DOT NAERG	Not applicable.

Review classification requirements before shipping materials at elevated temperatures.

15	Regulatory Information

-- 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 All components are in compliance with chemical notification requirements in New Zealand.

Canada All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

Switzerland All components are in compliance with the Environmentally Hazardous Substances Ordinance 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 All components of this product are listed on the Inventory of Existing Chemical Substances in China.

Taiwan All components of this product are listed on the Taiwan inventory.

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 From 0.5 to 1.5 percent zinc compounds; contains 0.1% as Zn.

SARA 311 Classifications

Acute Hazard	No
Chronic Hazard	No
Fire Hazard	No
Reactivity Hazard	No

CERCLA Hazardous Substances None known.

-- State Regulations --

Cal. Prop. 65 This product contains the following chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components: < 0.01 ppm cadmium < 0.05 ppm Benzene, CAS no. 71-43-2 < 0.05 ppm lead < 0.05 ppm arsenic 6 ppm Sulfur dioxide, CAS no. 7446-09-5 0.002% Toluene, CAS no. 108-88-3

-- 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.

16	Other Information

Issuing Department Product Safety and Compliance Department (440-943-1200)

Created Date 01 November 2011

Preparation/Revision Date 22 August 2013

US NFPA Codes

Health	Fire	Reactivity	Special
1	1	0	N/E

HMIS Codes

Health	Fire	Reactivity
0	1	0

Revision Indicators This MSDS has no revisions since 22 August 2013

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