



Prepared according to Global Harmonized System (GHS) standards.

1	Substance/Product Identification
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Product Trade Name	FZ1411AX
CAS Number	Not applicable for mixtures.
Synonyms	None.
Generic Chemical Name	Mixture.
Recommended Use	Multipurpose.
Restrictions on use	Not determined.
Created Date	11 September 2013
Preparation/Revision Date	13 September 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.	23688201-3411129-103311-102103

2	Hazards Identification
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Appearance	Dark brown 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.
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
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
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Eyes	Flush with water at least 30 minutes. Get medical attention if eye irritation develops or persists.
Skin	Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.
Inhalation	Remove exposed person to fresh air if adverse effects are observed.
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
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Flash Point	216 °C, 420.8 °F COC (Typical)
Extinguishing Media	CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.

Unsuitable Extinguishing Media	Not determined.
Firefighting Procedures	Recommend wearing self-contained breathing apparatus.
Unusual Fire & Explosion Hazards	Elevated temperatures can lead to the formation of irritating fumes and vapors. See section 10 for additional information.

6	Accidental Release Measures
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Personal precaution, protective equipment and emergency procedures	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.
Environmental precaution and protective procedures.	Take precautions to avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.
Methods for clean-up and removal	Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

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. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of product. Dispose of packaging or containers in accordance with local, regional, national and international regulations.
Maximum Storage Temperature	45 °C, 113 °F
Storage Procedures	Take precautions to avoid release to the environment. 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. See section 10 for incompatible materials.
Maximum Loading Temperature	Not determined.

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 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.

Gloves Procedures

Nitrile.

Clothing Recommendation

Long sleeve shirt is recommended. When working with heated material, wear heat protective clothing. Launder contaminated clothing before reuse.

Hygiene Measures

Wash thoroughly after handling this product.

9	Physical and Chemical Properties
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Flash Point	216 °C, 420.8 °F COC (Typical)
Upper Flammable Limit	Not determined.

FZ1411AX

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	0.88 (15.6 °C)
Bulk Density	Not determined.
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 brown liquid.
Viscosity	214 Centistokes (25 °C) 103 Centistokes (40 °C) 15 Centistokes (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
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Stability	Material is normally stable at room temperature and pressure. See the Handling and Storage Section for further details.
Decomposition Temperature	Not determined.
Incompatibility	Strong acids. 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.
Conditions to Avoid	High temperatures.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Not expected to cause eye irritation. Based on data from similar materials. Vapors may cause irritation.
Skin Irritation	Not expected to be a primary skin irritant. Based on data from similar materials. Repeated or prolonged skin contact may cause irritation.
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. Inhalation of processing mists and vapors may be irritating to the respiratory system.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.
Inhalation Toxicity	Overexposure to vapors or mist may cause dizziness, headache, nausea, and/or flu-like symptoms. Avoid inhalation of mists or vapors.
Oral Toxicity	The LD50 in rats is > 10,000 mg/Kg. Based on data from components or similar materials. Ingestion of this material may cause gastrointestinal irritation.
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**

Pre-existing skin conditions may be aggravated by prolonged or repeated exposure. Persons with sensitive airways (e.g., asthmatics) may react to vapors.

12	Ecological Information
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-- 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
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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

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.

DOT NAERG

Not applicable.

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

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 < 0.01 ppm arsenic < 0.01 ppm lead < 0.05 ppm Benzene, CAS no. 71-43-2 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
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Issuing Department

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

Created Date

11 September 2013

Preparation/Revision Date

13 September 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 13 September 2013

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