Safety Data Sheet

FORMULA 1030

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

FORMULA 1030

Revised Date: 7/29/2014

Chemical Name: Description:

Not Applicable See Section 3

Application Use:

Cooling Water Treatment

COMPANY IDENTIFICATION

PHONE NUMBER:

EMERGENCY PHONE NUMBERS

CHEMTREC (800) 424-9300

Outside USA: CHEMTREC COLLECT (703) 527-3887

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: Clear golden liquid with characteristic odor.

Immediate Concerns: Has not been determined for this product. Please refer to Section 3 and 8.

POTENTIAL HEALTH EFFECTS

Acute Eye Effects: May cause severe irritation or burns. Prolonged contact may cause irreversible damage and/or blindness.

Acute Skin Effects: Prolonged contact may cause severe irritation or burns.

Acute Inhalation Effects: Not a likely route of exposure. Effects unknown.

Acute Ingestion Effects: May be toxic. May cause severe irritation or burns of the mouth, throat, and internal tissues. Resulting in possible nausea and/or vomiting. Large amounts can result in acute toxic effects which may be fatal.

Chronic Effects from Repeated Overexposure: Other than short term effects, none established.

Medical Conditions Aggravated by Exposure: None known.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL INGREDIENTS	CAS NO.*	PERCENT (%)
A. Hazardous Ingredients POTASSIUM HYDROXIDE TOLYLTRIAZOLE, SODIUM SALT	1310-58-3 64665-57-2	4% - 14% < 5%
B. Other Ingredients POLYCARBOXYLATE PHOSPHONOBUTANE- 1,2,4-TRICARBOXYLIC ACID MOLYBDATE SALT	Proprietary 37971-36-1 10102-40-6	M M L

Legend: L=<1%; M=1-10%; H=>10%

^{*}Exposure limit and regulatory information in Sections 8 & 15

SECTION 4 - FIRST AID MEASURES

- **Eye Contact:** Immediately flush with clean, cool water for 15 minutes and if irritation persists, get medical attention.
- **Skin Contact:** Immediately wash skin with soap and plenty of water while removing contaminated clothing, for at least 15 minutes. If irritation persists, get medical attention. Launder contaminated clothing before reuse.
- **Inhalation:** No adverse effects anticipated by this route of exposure. If effects occur, remove patient to fresh air and give artificial respiration if required and get medical attention.
- **Ingestion:** Do not induce vomiting. Rinse mouth with copious quantities of water first and get immediate medical attention. Drink several glasses of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep airways clear.
- **Note to Physician:** There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage.

Other Comments: Other than acute, none known. See section 11 for toxicological information.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: None

Flammable Limits in Air: LFL - N.A.

UFL - N.A.

Extinguishing Media: Any media suitable for the surrounding fire.

- **Special Fire Fighting Instructions:** Wear self-contained breathing apparatus and full turn-out gear. Approach fire from upwind direction. If possible, move containers away from fire. Cool fire exposed containers with water spray. If containers rupture or leak, product may evolve irritating or toxic gas under extreme heat. Contain runoff
- **Decomposition products/Unusual Hazards:** Product is corrosive to eyes, skin, and respiratory system. Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat. If evaporated to dryness, some product residuals may burn. Contact with some metals may generate explosive hydrogen gas. Oxides of carbon, nitrogen, phosphorous and other potentially toxic fumes may be released if water is evaporated by the heat of a fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Containment and Clean-up Instructions:

Wear suitable protective equipment found in section 8. Small spills may be flushed with copious quantities of water, preferably to a sanitary sewer or waste treatment facility. Larger spills may be absorbed in sawdust or other absorbent and sweepings disposed of in an approved landfill. The area may then be flushed with copious quantities of water. Floor may be slippery; use care to avoid falling.

Environmental Precautions: Avoid release of this product into the environment to prevent contamination of soil, sewers, natural waterways and/or groundwater. See Section 12 for Ecological Information.

SECTION 7 - HANDLING AND STORAGE

Handling and Storage:

Store in a cool dry place, between 10°C and 49°C. Keep containers tightly closed when not in use and follow all recommended safety precautions when handling the material. Do not store near heat or open flame. Keep away from incompatible materials. See Section 10 for incompatible materials.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: General ventilation expected to be satisfactory

PERSONAL PROTECTION EQUIPMENT

Respiratory: Not normally required.

Eyes and Face: Chemical resistant goggles or face shield.

Hands and Skin: Chemical resistant rubber, neoprene latex or PVC

Other Protective Equipment: Eyewash station in area of use. Wear long sleeve shirt, long pants, and

boots.

EXPOSURE GUIDELINES

Exposure Limits:

COMPONENT

POTASSIUM HYDROXIDE

MOLYBDATE SALT

TLV

2mg/m³/15M

 $0.5 \text{ mg/m}^3(\text{Mo})$

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:

>100°C (212°F)

Density (lb/gal):

Specific Gravity(@22°C):

9.62 1.155-1.165

Flash Point: Percent Volatile: None >65

pH (undiluted):

13.1-13.6

Vapor Pressure:

N.A.

Freeze Point:

< 0°C (32°F)

Vapor Density:

<1

Solubility in Water:

Evaporation Rate:

1.0

Viscosity:

Complete

N.D.

Appearance and Odor: Clear golden liquid with characteristic odor.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal

conditions.

Conditions to Avoid: Avoid excessive heat, sparks or open flames.

Incompatible Materials: Concentrated acids or oxidizing agents.

Hazardous Decomposition Products: Oxides of carbon, nitrogen, phosphorous and other potentially

toxic fumes may be released if water is evaporated by the heat of a fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA

Ingestion Testing: None established for this product.

Skin Testing: None established for this product.

Inhalation Testing: None established for this product.

CHRONIC TOXICITY DATA

Sensitization Testing: None established for this product.

Other Testing: None established for this product.

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic Toxicity Data: Water Flea, Ceriodaphnia dubia, LC50/48hr: 2012mg/l

Product Fate Data: None established for this product. **Biodegradation Data:** None established for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in accordance with local, regional, national and international regulations. Contact the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Container Disposal: Triple rinse container (or equivalent) promptly after emptying and offer for reconditioning if appropriate. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal.

SECTION 14 - TRANSPORT INFORMATION

US DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION

UN/NA ID Number: UN3266

Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS POTASSIUM

HYDROXIDE)
Hazard Class: 8
Packing Group: PGII

VESSEL TRANSPORT (IMO/IMDG)

UN/NA ID Number: UN3266

Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS POTASSIUM

HYDROXIDE)
Hazard Class: 8
Packing Group: PGII

SECTION 15 - REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA: All ingredients listed or exempt from listing.

CERCLA and/or SARA RQ: N.A.

SARA Section 302 Hazard Class: N.A.

SARA Section 311/312 Chemicals: Acute Hazard: Yes

SARA Section 313 Chemicals: N.A.

STATE REGULATIONS

N.A.

SECTION 16 - OTHER INFORMATION

HAZARD RATING SUMMARY

Hazard Rating System: NFPA Health: 2

Health: 2 Flammability: 0 Reactivity: 1

Special:

CODE TRANSLATION

0 = Minimal Hazard

1 = Slight Hazard

2 = Moderate Hazard 3 = Severe Hazard

4 = Extreme Hazard

Other Precautions: This product has been designed for use in specific types of cooling water circuits and should be used only in accordance with the instructions provided by the technical representative servicing the facility. It may not be used for the treatment of potable water.

MSDS REVISION SUMMARY

Revised Date

Revision Notes

7/29/2014

Supersedes: 4/15/14

ABBREVIATION CODE SUMMARY

N.A. - Not Applicable

N/A - Not Available

N.D. - Not Determined

N.E. - None Established