

Safety Data Sheet

FORMULA 1230

1. IDENTIFICATION

Product Name: FORMULA 1230 **Revised:** 8/6/15
Chemical Name: Not Applicable
Description: Clear, pale yellow liquid with characteristic odor
Recommended Use: Boiler Water Treatment
Restrictions on Use: For industrial use only. Not for use in treating drinking water or some food processing cooling systems.

COMPANY IDENTIFICATION

CLEARWATER INDUSTRIES, INC.
415 BRIDGEPORT AVENUE
SHELTON, CT 06484

PHONE NUMBER: (203) 944-0066

EMERGENCY PHONE NUMBERS

CHEMTREC (800) 424-9300
Outside USA: CHEMTREC COLLECT (703) 527-3887

2. HAZARD(S) IDENTIFICATION

GHS Classification:

Serious eye damage/irritation - Category 1
Skin corrosion/irritation - Category 1C
Specific target organ toxicity, single exposure - Category 1
Specific target organ toxicity, single exposure - Category 1
Acute toxicity, oral - Category 4
Hazardous to the aquatic environment, acute hazard - Category 2

Signal Word: Danger

Symbol(s):



Hazard Statements:

Causes severe skin burns and eye damage.
Causes damage to digestive system if swallowed.
Causes damage to respiratory system if inhaled.
Harmful if swallowed.
Toxic to aquatic life.

Precautionary Statements:

Prevention

Do not breathe dusts or mists. Do not get in eyes, on skin, or on clothing. Wash hands, forearms, gloves and contaminated surfaces thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/eye protection/face protection.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CONTROL CENTER or doctor for treatment advice.

IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. Specific treatment (see First Aid on SDS or on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CONTROL CENTER or doctor for treatment advice.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CONTROL CENTER or doctor for treatment advice.

Call a POISON CONTROL CENTER or doctor for treatment advice if you feel unwell.

Storage
Store locked up.

Disposal
Dispose of contents/container in accordance with local, regional, national and international regulations.

Hazards Not Otherwise Classified: None Known.

Percentages of Components with Unknown Acute Toxicity:

Dermal: 16%

Inhalation: 16%

3. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL INGREDIENTS	CAS NO.*	PERCENT (%)**
SODIUM NITRITE	7632-00-0	9% - 19%
POTASSIUM HYDROXIDE	1310-58-3	< 5%
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	64-02-8	(trace)
SODIUM HYDROXYACETATE	2836-32-0	(trace)
HYDROXYETHYLIDENE DIPHOSPHONIC ACID	2809-21-4	(trace)
PHOSPHINOCARBOXYLIC ACID HOMOPOLYMER	71050-62-9	L
POLYACRYLIC COPOLYMER ESTER	Proprietary	L

* Exposure limit and regulatory information in Sections 8 & 15

** Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

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: Remove victim to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek medical attention. If not breathing, give artificial respiration via a suitable mechanical device such as a bag and mask. Do not use mouth-to-mouth resuscitation.

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.

Most Important Symptoms/Effects:

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

Skin Contact: Prolonged contact may cause severe irritation, rash or burns. Severity is generally determined by concentration of solution and duration of contact.

Inhalation: Inhalation of vapor or mist can cause severe irritation of nose, throat, and lungs. May cause damage to the upper respiratory tract and lungs under severe conditions.

Ingestion: May be toxic. May cause severe irritation or burns to internal tissues. Large amounts can result in acute toxic effects: nausea, conversion of hemoglobin to methemoglobin {producing

cyanosis (blue skin)); a marked fall in blood pressure leading to collapse, coma, and possibly death.

Indication of Immediate Medical Attention and Special Treatment, if Necessary:

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

5. FIRE FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Any media suitable for the surrounding fire. Flood with water. Heavy water jet advantageous.

Specific Hazards Arising from the Chemical: 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. Thermal decomposition may release oxides of carbon and nitrogen. The dry nitrite is an oxidizing agent and can supply oxygen to stimulate or accelerate the combustion of other combustibles.

Special Protective Equipment and Precautions for Fire-Fighters: 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.

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 should be diked to prevent runoff and then absorbed in sand or other inert absorbent for disposal. The area may then be flushed with copious quantities of water. Floor may be slippery; use care to avoid falling. 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.

7. HANDLING AND STORAGE

Handling and Storage:

Store in a cool, dry, well ventilated area, between 10°C and 49°C. Keep containers tightly closed when not in use and follow all recommended safety precautions when handling the material. Keep out of sun and away from heat or open flame. Keep away from incompatible materials. See Section 10 for incompatible materials.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: General ventilation expected to be satisfactory

PERSONAL PROTECTION EQUIPMENT

Respiratory: Not normally required if good ventilation is maintained. Otherwise, wear self-contained breathing apparatus

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	TLV
POTASSIUM HYDROXIDE	2mg/m ³ /15M
SODIUM HYDROXIDE	2mg/m ³ /15M

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Clear, pale yellow liquid with characteristic odor	Vapor Pressure:	N.A.
Odor Threshold:	N.D.	Vapor Density:	<1
pH (undiluted):	11.8 - 12.8	Specific Gravity(@22°C):	1.10 - 1.11
Freeze Point:	< -4°C (24°F)	Solubility in Water:	Complete
Boiling Point:	> 100°C (212°F)	Partition Coefficient:	N.D. (n-octanol/water)
Flash Point:	None	Auto-Ignition Temperature:	N.D.
Evaporation Rate:	1.0	Decomposition Temperature:	N.D.
Flammability (solid, gas):	No	Viscosity:	N.A.
Flammable Limits in Air:	LFL – N.A. UFL – N.A.		

10. STABILITY AND REACTIVITY

Reactivity: Reactive to incompatible materials.

Chemical Stability: Stable under normal conditions

Possibility of Hazardous Reactions: Will not occur under normal conditions.

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

Incompatible Materials: Hazardous reactions can occur with acids, ammonium compounds, reducing agents -particularly cyanides, thiocyanates and thiosulfates, certain combustibles and organics.

Hazardous Decomposition Products: Thermal decomposition may release oxides of carbon and nitrogen. The dry nitrite is an oxidizing agent and can supply oxygen to stimulate or accelerate the combustion of other combustibles.

11. TOXICOLOGICAL INFORMATION

Ingestion Testing: Rat, LD50: 596 mg/kg*

Skin Testing: None established for this product.

Inhalation Testing: None established for this product.

*Calculated based on GHS acute toxicity formula.

CHRONIC TOXICITY DATA

Sensitization Testing: None established for this product.

Other Testing: None established for this product.

Routes of Exposure: Eyes, Ingestion, Inhalation, Skin.

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

Skin Contact: Prolonged contact may cause severe irritation, rash or burns. Severity is generally determined by concentration of solution and duration of contact.

Inhalation: Inhalation of vapor or mist can cause severe irritation of nose, throat, and lungs. May cause damage to the upper respiratory tract and lungs under severe conditions.

Ingestion: May be toxic. May cause severe irritation or burns to internal tissues. Large amounts can result in acute toxic effects: nausea, conversion of hemoglobin to methemoglobin (producing cyanosis (blue skin)); a marked fall in blood pressure leading to collapse, coma, and possibly death.

Medical Conditions Aggravated by Exposure: None known.

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

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Data:

Invertebrate: Daphnia magna, LC50/48hr: 88.2 mg/l*

Fish: Rainbow trout, LC50/96hr: 6.71 mg/l*

*Calculated based on GHS acute aquatic toxicity formula.

Product Fate Data: None established for this product.

Biodegradation Data: None established for this product.

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.

14. TRANSPORT INFORMATION

US DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION

UN/NA ID Number: UN3266

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

Hazard Class: 8

Packing Group: PGIII

VESSEL TRANSPORT (IMO/IMDG)

UN/NA ID Number: UN3266

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

Hazard Class: 8

Packing Group: PGIII

Marine Pollutant: No

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA: All ingredients listed or exempt from listing.

CERCLA and/or SARA RQ:

Reportable Quantity: SODIUM NITRITE (CAS#7632-00-0) - 100lbs. (45 kg)

Reportable Quantity: POTASSIUM HYDROXIDE (CAS#1310-58-3) - 1000lbs. (455 kg)

Reportable Quantity: SODIUM HYDROXIDE (CAS#1310-73-2) - 1000lbs. (455 kg)

SARA Section 302 Hazard Class: No ingredients listed in this section.

SARA Section 311/312 Chemicals:

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: Yes

SARA Section 313 Chemicals: No ingredients listed in this section.

STATE REGULATIONS

This product contains a chemical(s) known to State of California to cause cancer and/or birth defects or other reproductive harm.

16. OTHER INFORMATION

HAZARD RATING SUMMARY

Hazard Rating System:	NFPA	CODE TRANSLATION
Health:	2	0 = Minimal Hazard
Flammability:	0	1 = Slight Hazard
Reactivity:	1	2 = Moderate Hazard
Special:		3 = Severe Hazard
		4 = Extreme Hazard

Other Precautions: This product has been designed for use in specific types of cooling and heating 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.

SDS REVISION SUMMARY

Revised Date	Revision Notes
8/6/15	GHS Version 1.0: Supersedes: 4/22/15, Updated Transportation information.

ABBREVIATION CODE SUMMARY

- N.A. – Not Applicable
- N/A – Not Available
- N.D. – Not Determined
- N.E. – None Established

Disclaimer: The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given.