

# Safety Data Sheet

FORMULA 1204

## 1. IDENTIFICATION

**Product Name:** FORMULA 1204 **Revised:** 2/9/15  
**Chemical Name:** Nitrite Based Inhibitor  
**Description:** Off-white to yellow free-flowing solid with characteristic odor.  
**Recommended Use:** Closed System Treatment  
**Restrictions on Use:** For industrial use only. Not for use in treating drinking water

### 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:

Oxidizing liquids; Oxidizing solids - Category 3  
Serious eye damage/irritation - Category 2A  
Skin corrosion/irritation - Category 2  
Specific target organ toxicity, single exposure - Category 2  
Specific target organ toxicity, single exposure - Category 2  
Acute toxicity, oral - Category 3  
Hazardous to the aquatic environment, acute hazard - Category 2  
Hazardous to the aquatic environment, long-term hazard - Category 2

**Signal Word:** Danger

**Symbol(s):**



### Hazard Statements:

May intensify fire; oxidizer  
Causes serious eye irritation  
Causes skin irritation  
May cause damage to digestive system if swallowed  
May cause damage to respiratory system if inhaled  
Toxic if swallowed  
Toxic to aquatic life  
Toxic to aquatic life with long lasting effects

### Precautionary Statements:

#### Prevention

Keep away from sparks and open flames. No smoking. Keep/Store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dusts or mists. 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

In case of fire: Use Flood with water. Heavy water jet advantageous to extinguish.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
Immediately call a POISON CONTROL CENTER or doctor for treatment advice.  
Specific treatment (see First Aid on SDS or on this label).

IF ON SKIN: Wash with plenty of soap and water.  
 If skin irritation occurs: Get medical advice or attention.  
 Take off contaminated clothing and wash it before reuse.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.  
 IF exposed or concerned: Call a POISON CONTROL CENTER or doctor for treatment advice.  
 Collect spillage.

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: 100%

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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CHEMICAL INGREDIENTS	CAS NO.*	PERCENT (%)**
SODIUM NITRITE	7632-00-0	83% - 93%
SODIUM TETRABORATE DECAHYDRATE	1303-96-4	M
ALKALINE CARBONATE SALT	497-19-8	M
BENZOTRIAZOLE	95-14-7	M

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

\* 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.

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### 4. FIRST AID MEASURES

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**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 irritation. May cause corneal damage with prolonged contact.

**Skin Contact:** Prolonged contact may cause irritation.

**Inhalation:** Inhalation of dust may irritate respiratory tract. Large amounts may cause systemic effects, as nitrites are readily absorbed by lung tissue.

**Ingestion:** May be toxic. 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.

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## 5. FIRE FIGHTING MEASURES

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**Suitable (and Unsuitable) Extinguishing Media:** Flood with water. Heavy water jet advantageous.

**Specific Hazards Arising from the Chemical:** Product may be irritating to the eyes, skin, and respiratory system. Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat. Solid product will melt and combustion may occur when exposed to fire. 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.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Spill Containment and Clean-up Instructions:**

Wear suitable protective equipment found in section 8. Collect spilled material into suitable containers and dispose of in accordance with all local, state and federal requirements. The area may then be flushed with copious quantities of water. Floor may be slippery; use care to avoid falling. This product is toxic to aquatic life. 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.

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## 7. HANDLING AND STORAGE

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**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.

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## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

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**Engineering Controls:** General ventilation satisfactory. Local exhaust if dusting occurs.

### PERSONAL PROTECTION EQUIPMENT

**Respiratory:** Not normally required unless dusting occurs. Wear NIOSH approved dust respirator

**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
N.A.	

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance and Odor:</b>	Off-white to yellow free-flowing solid with characteristic odor.		
<b>Odor Threshold:</b>	N.D.	<b>Vapor Pressure:</b>	N.A.
<b>pH (5% solution):</b>	10.0 - 11.0	<b>Vapor Density:</b>	N.A.
<b>Freeze Point:</b>	N.D.	<b>Specific Gravity(@22°C):</b>	1.28 g/cm <sup>3</sup>
<b>Boiling Point:</b>	N.A.	<b>Solubility in Water:</b>	<40%
<b>Flash Point:</b>	None	<b>Partition Coefficient:</b>	N.D. (n-octanol/water)
		<b>Auto-Ignition Temperature:</b>	N.D.
<b>Evaporation Rate:</b>	N.A.	<b>Decomposition Temperature:</b>	N.D.
<b>Flammability (solid, gas):</b>	No	<b>Viscosity:</b>	N.A.
<b>Flammable Limits in Air:</b>	<b>LFL</b> – N.A.		
	<b>UFL</b> – N.A.		

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** Not normally reactive at normal temperatures and pressure.

**Chemical Stability:** Stable under normal conditions

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

**Conditions to Avoid:** Avoid water, 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. Product decomposes even by weak acids with evolution of brown fumes of N<sub>2</sub>O<sub>3</sub>.

**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.

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## 11. TOXICOLOGICAL INFORMATION

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**Ingestion Testing:** Rat, LD50: 96.0 mg/kg\*

**Skin Testing:** None established for this product.

**Inhalation Testing:** Rat, LC50: 5.40 mg/kg

\*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 irritation. May cause corneal damage with prolonged contact.

**Skin Contact:** Prolonged contact may cause irritation.

**Inhalation:** Inhalation of dust may irritate respiratory tract. Large amounts may cause systemic effects, as nitrites are readily absorbed by lung tissue.

**Ingestion:** May be toxic. 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:** Asthma, bronchitis, emphysema and other lung diseases and chronic nose, sinus and throat conditions. Skin irritation may be aggravated in individuals with existing skin disorders.

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

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## 12. ECOLOGICAL INFORMATION

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### **Aquatic Toxicity Data:**

Invertebrate: Daphnia magna, LC50/48hr: 14.1 mg/l

Fish: Rainbow trout, LC50/96hr: 1.07 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.

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## 13. DISPOSAL CONSIDERATIONS

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**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.

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## 14. TRANSPORT INFORMATION

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### **US DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION**

**UN/NA ID Number:** UN3087

**Proper Shipping Name:** OXIDIZING SOLID, TOXIC, N.O.S. (CONTAINS SODIUM NITRITE)

**Hazard Class:** 5.1(6.1)

**Packing Group:** PGIII

### **VESSEL TRANSPORT (IMO/IMDG)**

**UN/NA ID Number:** UN3087

**Proper Shipping Name:** OXIDIZING SOLID, TOXIC, N.O.S. (CONTAINS SODIUM NITRITE)

**Hazard Class:** 5.1(6.1)

**Packing Group:** PGIII

**Marine Pollutant:** Yes

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## 15. REGULATORY INFORMATION

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### **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)

**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: Yes

Sudden Release of Pressure Hazard: No

Reactive Hazard: Yes

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

### **STATE REGULATIONS**

This product does not contain any ingredients known to the State of California to cause cancer.

**16. OTHER INFORMATION**

**HAZARD RATING SUMMARY**

Hazard Rating System: NFPA  
 Health: 2  
 Flammability: 0  
 Reactivity: 1  
 Special: OX

**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 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**

<b>Revised Date</b>	<b>Revision Notes</b>
2/9/15	GHS Version 1.0: Supersedes: 12/8/14

**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.*