

## 1. IDENTIFICATION

*Trade Name:* #1009 Cooling Water Treatment

*Chemical Name & Synonyms:* Proprietary Cooling Water Treatment Blend

*UN/ID No:* N/A

## 2. Hazards Identification

*Classification:* Corrosive

*Signal Word:* DANGER

**Hazard Statements:**



### GHS – Classification

Acute toxicity - Oral N/A

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 1

Specific target organ toxicity (one exposure) N/A

H315 Causes skin irritation

H318 Causes serious eye damage.

**Physical Hazards** N/A

### Precautionary Statements:

P233 Keep container tightly closed

P234 Keep only in original container

P262 Do not get in eyes or on skin or on clothing

P270 Do not eat or drink or smoke when using this product

P280: Wear protective gloves/protective clothing/eye protection/face protection.

## 3. Composition / Information on Ingredients

Chemical Name	CAS No	Weight-%
Hydroxyethylidene	2809-21-4	1-2%
Caustic Soda	1310-73-2	2-5%
Sodium Tolyltriazole	64665-57-2	<1%
Sodium Benzotriazole	15217-42-2	<1%

## 4. First Aid Measures

**General Advice:** P101: If medical advice/attention is needed; have product container or label at hand

**Eye Contact:** H320: Causes eye irritation

**Skin Contact:** H313: May be harmful in contact with skin

**Inhalation:** H333: May be harmful if inhaled.

**Ingestion:** H303: May be harmful if swallowed.

**Note to Physicians:** Treat symptomatically.

**Self-protection of the First Aider:** None specific. General healthcare PPE is appropriate

## 5. Fire-fighting Measures

**Flammable Properties:** Non-flammable

**Explosive Properties:** N/A

**Suitable Extinguishing Media:** N/A

**Unsuitable Extinguishing Media:** N/A

**Specific Hazards Arising from the Chemical:** Flammable Hydrogen gas and Sulfur Trioxide gas may be generated if material is heated to boiling point in surrounding fire.

## Protective Equipment and Precautions for Firefighters:

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode

## 6. Accidental Release Measures

**Personal Precautions:** Routine PPE for any spill, no unique requirement.

**Environmental Precautions:** If not diluted, this product may become a hazardous waste as designated by the EPA under authority of the Resource Conservation and Recovery Act (RCRA)

**Methods for Cleaning Up:** Product is water soluble and may be diluted and flushed as below described.

**Other Information:** This product is intended to be used in open recirculating cooling water treatment and discharged to sanitary sewer in its diluted state in tower bleedoff water. Concentrated product may be diluted to a similar working concentration and flushed to sewer or soaked up with absorbent material and landfilled in accordance with local, state, and federal regulations.

## 7. Handling and Storage

**Advice on Safe Handling:** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Use only with adequate ventilation.

**Storage Conditions:** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Incompatible Materials:** None known

## 8. Exposure Controls / Personal Protection

### Chemical Name

<b>Sodium Hydroxide</b>	1310-73-2	USA ACGIH	2 mg/m <sup>3</sup>	ACGIH Ceiling (mg/m <sup>3</sup> )
		USA OSHA	2 mg/m <sup>3</sup>	OSHA PEL (TWA) (mg/m <sup>3</sup> )
<b>1-Hydroxyethylidene 1,1-</b>	2809-21-4	Not Regulated		
<b>Benzotriazole (Powder/Granular)</b>	95-14-7	Contains no substances with occupational exposure limit values.		
<b>Tolyltriazole sodium salt</b>	64665-57-2	Contains no substances with occupational exposure limit values.		

**Exposure Guidelines** N/A

**Engineering Controls:** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment (PPE)** Wear suitable industrial protective clothing  
**Eye/Face Protection:** Industrial Safety Glasses and face shield  
**Body Protection:** Industrial protective clothing, rubber gloves when appropriate  
**General Hygiene Considerations:** Do not eat, drink, or smoke while handling this product.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

**Appearance:** Clear light amber liquid with slight organic odor  
**pH:** 9.0-9.5  
**Specific Gravity:** 1.075  
**Molecular Weight:** Mixture  
**Water Solubility:** Completely soluble  
**Melt/FreezePoint:** 0°C / 32 °F  
**Boiling Point:** 100 °C / 212 °F  
**Flammability** N/A  
**Flash Point:** N/A  
**Vapor density:** N/A

## 10. Stability and Reactivity

**Stability:** Stable under normal conditions of use and storage  
**Conditions to Avoid:** None known  
**Incompatible Materials:** None known  
**Hazardous Decomposition Products:** None known  
**Possibility of Hazardous Reactions:** None known

## 11. Toxicological Information

<b>Component: 1-Hydroxy Ethylidene 1,1 CAS 2809-21-4</b>	
Acute Oral Toxicity	LD50, Mouse, 1800. MG/KG.
Acute inhalation toxicity	No data available
Acute Dermal Toxicity	LD50 Dermal - Rat - 7000 mg/kg
Eye irritation	Strong irritant with the danger to cause serious eye injury, caused serious eye irritation
Target Organ Systemic Toxicant -Single exposure	Injection or inhalation will result in serious damage to affected membranes
Target Organ Systemic Toxicant - Repeated exposure	Routes of exposure: Inhalation May cause damage to organs through prolonged or repeated exposure.
Skin corrosion/irritation:	Can cause irritation to the skin.
Ingestion:	May be harmful if swallowed. Can cause slight irritation and discomfort.
Respiratory or skin sensitization:	No data available
Reproductive toxicity:	No data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Aspiration hazard:	May be harmful if inhaled. Can cause irritation to the respiratory tract and can induce coughing.
Germ cell mutagenicity:	No data available

<b>Component: Sodium Hydroxide CAS 1310-73-2</b>	
Acute Oral Toxicity	LDLo - Lowest published lethal dose oral rabbit 500 mg /kg
Acute inhalation toxicity	No data available
Acute Dermal Toxicity	1350 mg/kg (Rabbit; Literature,Rabbit; Literature)
Eye irritation	Causes serious eye damage.
Target Organ Systemic Toxicant -Single exposure	Ingestion or inhalation will result in serious damage to affected membranes
Target Organ Systemic Toxicant - Repeated exposure	Based on available data, the classification criteria are not met
Skin corrosion/irritation:	Causes severe skin burns and eye damage.
Respiratory or skin sensitization:	No data available
Reproductive toxicity:	Based on available data, the classification criteria are not met
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Aspiration hazard:	No data available
Germ cell mutagenicity:	Based on available data, the classification criteria are not met

<b>Component: Benzotriazole (Powder/Granular) CAS 95-14-7</b>	
Acute Oral Toxicity	LD50 : 560 mg/kg (rat)
Acute inhalation toxicity	LD50 : >1.5 mg/l (rat, 4 hours)
Acute Dermal Toxicity	LD50 : >1 gm/kg (rat)
Eye irritation	Highly irritating (Rabbit, dose = 100mg, 72 hours)
Target Organ Systemic Toxicant -Single exposure	No data available
Target Organ Systemic Toxicant - Repeated exposure	No data available
Skin corrosion/irritation:	Not irritating (Rabbit, 4 hours)
Inhalation	No data available
Respiratory or skin sensitization:	No data available
Reproductive toxicity:	No data available
Carcinogenicity	This product is not listed on OSHA, NIOSH, IARC, or NTP as cancer-causing
Aspiration hazard:	No data available
Germ cell mutagenicity:	No data available

**Long Term Exposure Health Effects:**

Eyes : Causes serious damage to the eyes. Skin : Harmful if absorbed through skin, prolonged exposure is severely harmful to health. Inhalation : Toxic if inhaled, causes respiratory tract irritation. Ingestion : Harmful if ingested, prolonged exposure is severely harmful to health.

<b>Component: Tolytriazole sodium salt CAS 64665-57-2</b>	
Acute Oral Toxicity	(rat) LD50: 1980mg/kg

Acute inhalation toxicity	No data available
Acute Dermal Toxicity	(rabbit) LD50: 2000 mg/kg
Eye irritation	Causes eye burns. May cause chemical conjunctivitis and corneal damage
Target Organ Systemic Toxicant -Single exposure	Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract.
Target Organ Systemic Toxicant - Repeated exposure	No data available
Skin corrosion/irritation:	Causes skin burns. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.
Inhalation	Causes chemical burns to the respiratory tract. May cause central nervous system effects including vertigo, anxiety, depression, muscle in-coordination, and emotional instability. Aspiration may lead to pulmonary edema. May cause cardiac abnormalities. May cause systemic effects.
Respiratory or skin sensitization:	No data available
Reproductive toxicity:	No data available
Carcinogenicity	IARC, NTP, ACGIH, and OSHA do not list Tolyltriazole sodium salt 50% solution as a carcinogen
Aspiration hazard:	No data available
Germ cell mutagenicity:	No data available

## 12. Ecological Information

**Ecotoxicity:** 0% of the mixture consists of ingredient(s) of unknown toxicity.

### Chemical Name

Blended product not tested

<b>Component: 1-Hydroxy Ethylidene 1,1 CAS 2809-21-4</b>	
Toxicity, Fish	Rainbow Trout ( <i>Oncorhynchus mykiss</i> ), 368.0 MG/L, 96 H.
Toxicity, invertebrates	Water Flea ( <i>Daphnia magna</i> ), 527.0 MG/L, 48 H.
Toxicity, Algae	
Bioaccumulation	This material is not expected to bio-accumulate.
Mobility	Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence that this would cause adverse ecological effects.
Biodegradability	Degrades after acclimatization.
Biochemical OxygenDemand (BOD)	No data available
Other adverse effects:	No data available

<b>Component: Sodium Hydroxide CAS 1310-73-2</b>	
Toxicity, Fish	LC50 45.4 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
Toxicity, invertebrates	LD50 100 mg/l (48 h; <i>Daphnia magna</i> ; PURE SUBSTANCE)
Toxicity, Algae	No data available

Bioaccumulation	This material will not bioconcentrate
Mobility	No data available
Biodegradability	This Material will disassociate into ionic form in the aquatic environment . Natural carbon dioxide will slowly neutralize this material
Biochemical OxygenDemand (BOD)	No data available
Other adverse effects:	No data available
<b>Component: Benzotriazole (Powder/Granular) CAS 95-14-7</b>	
Toxicity, Fish	Salmo gairdneri (fish, freshwater, estuary) EC50 (96h) - 24.4 mg/L
Toxicity, invertebrates	Daphnia magna (Crustacea) EC50 (48h) - 91 mg/L
Toxicity, Algae	Selenastrum capricornutum (Algae) EC50 (72 h) - 231 mg/L
Ecotoxicity	This material may be harmful or fatal to contaminated plants or animals, especially if large volumes are released into the environments.
Bioaccumulation	Log Kow: 1.44
Mobility	Expected to have high mobility in soil
Biodegradability	Readily biodegradable
Biochemical OxygenDemand (BOD)	No data available
Other adverse effects:	No data available
<b>Component: Tolyltriazole sodium salt CAS 64665-57-2</b>	
EcoToxicity	No data available
Toxicity, Fish	No data available
Toxicity, invertebrates	No data available
Toxicity, Algae	No data available
Bioaccumulation	No data available
Mobility	No data available
Biodegradability	No data available
Biochemical OxygenDemand (BOD)	No data available
Other adverse effects:	No data available

### 13. Disposal Considerations

#### Waste from Residues/Unused Products:

P501 Dispose of contents/container in accordance with local/state/federal regulations

**Contaminated Packaging:** Do not reuse container for potable / food contact. Wash and rinse thoroughly before reuse / recycling

### 14. Transport information (USDOT):

**Proper shipping Name:** Proprietary Cooling Water Treatment Blend

**Hazard Class:** Non-Hazardous

**UN/ID No** None

**Packing Group** None



**Reportable Quantity (RQ)** None  
**Description:** N/A

**15. Regulatory Information**

This product is not regulated.

**National Fire Protection Association (NFPA) Ratings:**



**NSF Certification:** N/A

**16. Other Information**

This Safety Data Sheet compiled from information provided by the raw chemical product manufacturers.