

# SAFETY DATA SHEET

## 1-CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Date Prepared: 6-19-2014

Material Identification: Pool Style Non-Chlorinating Shock Oxidizer

Trade names and Synonyms: Potassium monopersulfate, Potassium peroxymonosulfate

Company Identification: Qualco Inc. / 225 Passaic Street / Passaic, NJ 07055

Phone Number: 973-473-1222      Emergency: CHEMTREC – 1-800-424-9300

## 2-HAZARDS IDENTIFICATION

**Potential Health Effects:** Oxone Monopersulfate blended with 0-20% Sodium Carbonate is a skin and eye corrosive, and a nose throat and lung irritant. May cause allergic skin reactions in sensitive individuals. Ingestion may cause inflammation and damage to the lining of the stomach, resulting in bleeding.



HUMAN HEALTH EFFECTS:

Skin contact with aqueous solutions or the dry powder upon contact with moisture or perspiration may cause skin burns or ulceration; temporary body hair loss may occur in contacted areas. Skin contact with this product may cause allergic skin reactions in sensitive individuals. Human patch tests with the product diluted in water at concentrations up to 150 ppm did not cause allergic skin reactions.

Eye contact may cause corneal opacity (clouding of the eye) and eye corrosion or ulceration. Severe eye damage may result (See First Aid Measures)

Inhalation may cause nose bleeds and irritation of the upper respiratory passages and lungs with coughing, discomfort, difficult breathing and shortness of breath. Ingestion may cause gastritis possibly progressing to necrosis or hemorrhage.

Individuals with pre-existing diseases of the skin or gastrointestinal tract may have increased susceptibility to the toxicity of excessive exposures.

### Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

### 3-COMPOSITION/INFORMATION ON INGREDIENTS

Components: Oxone Monopersulfate Compound (CAS #70693-62-8) - 80%-100%

Sodium Carbonate (CAS #497-19-8) - 0% - 20%

## 4-FIRST AID MEASURES

**FIRST AID:**

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**Ingestion:** If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

## 5-FIRE FIGHTING MEASURES

### Flammable Properties:

Will not burn

### Fire and Explosion Hazards:

Improper storage of large masses of potassium monopersulfate or blended potassium monopersulfate can trap heat and lead to ignition of combustibles (See section on Handling and Storage). Grinding or intensive mixing may cause decomposition with liberation of heat and oxygen; ignition of oxidizable material if present may occur.

Extinguishing Media:

Water. Do not use carbon dioxide or other gas-filled fire extinguishers; they will have no effect on decomposing persulfates.

**Fire Fighting Instructions:**

Will release oxygen when heated, intensifying a fire. Acidic mist may be present; self contained breathing apparatus should be used.

## 6-ACCIDENTAL RELEASE MEASURES

### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES AND HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONNEL PROTECTIVE EQUIPMENT during clean-up

### Accidental Release Measures

Sweep up. Flush area with low pressure water. (See Disposal Consideration).

## 7-HANDLING AND STORAGE

### Handling (Personnel)

Do not inhale. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Wash clothing after use.

### Storage

Store in a cool, dry, well ventilated area away from heat sources such as light fixtures or space heaters.

Pallets may be stacked. Leave open space on all sides of each pallet to provide ventilation. See local fire codes for allowable limits. Do not store with combustible materials or with incompatibles (See incompatibility with other materials\*)

## 8-EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Controls

Use sufficient ventilation to keep employee exposure below recommended limits.

### Personal Protective Equipment

#### For Exposure to Dry Material

#### Eye/Face Protection:

Wear safety glasses or coverall chemical splash goggles

#### Respirators:

A NIOSH approved air-purifying respirator with an appropriate particulate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

#### Protective Clothing:

Where there is potential for skin contact, have available and wear as appropriate impervious gloves, apron, pants and jacket.

#### For Exposure To Solutions:

Eye/Face Protection: Wear coverall chemical splash goggles. Additionally wear a face shield where the possibility exists for face contact due to splashing or spraying of material.

Respirators: A NIOSH approved air-purifying respirator with an appropriate particulate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

#### Protective Clothing:

Where there is potential for skin contact, wear impervious clothing such as gloves, apron, boots or whole bodysuit.

### Exposure Guidelines

#### Exposure Limits:

PEL (OSHA) – Particulates (Not Otherwise Regulated)

15 mg/m<sup>3</sup>, 8 hr. TWA total dust,

5 mg/m<sup>3</sup>, 8 hr. TWA, respirable dust

#### Other Applicable Exposure Limits

#### Potassium Monopersulfate Compound

PEL (OSHA): None Established

TLV (ACGIH): None Established

AEL\* (Dupont): 1 ,g/m<sup>3</sup>, total dusts, 8 & 12 hr., TWA

#### Sodium Carbonate

PEL (OSHA): None Established

TLV (ACGIH): None Established

AEL\* (Dupont): 5 ,g/m<sup>3</sup>, 8 hr., TWA

**8-EXPOSURE CONTROLS/PERSONAL PROTECTION (Con't)**

\*AEL is Dupont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

**9-PHYSICAL AND CHEMICAL PROPERTIES**

Physical Data (for unblended "Oxone" unless otherwise noted)

Boiling Point: @760 mm Hg Decomposes  
 Vapor Pressure: Nil  
 Vapor Density: Not volatile  
 Melting Point: Decomposes  
 Evaporation Rate: (Butyl Acetate = 1) Not volatile  
 Solubility in Water: 25.6 WT% @ 20°C (68°F)  
 pH: 1% solution = 2.3, 3% solution = 2  
 Odor: Odorless  
 Form: Granular; free flowing solid  
 Color: Blue  
 Specific Gravity: 1.1 – 1.4

**10-STABILITY AND REACTIVITY**

Chemical Stability:

Stable when handled and stored as indicated. The mixture reacts when moistened with small quantities of water to produce heat and carbon dioxide gas.

Incompatibility with Other Materials

The mixture of potassium monopersulfate with compounds containing halides or active halogens can cause release of the respective halogen if moisture is present. For example, mixing with calcium hypochlorite or sodium bromide can cause release of hydrogen cyanide gas. Mixing with heavy metal salts such as those of cobalt, nickel, copper or manganese can cause decomposition with release of oxygen and heat.

Decomposition:

Decomposes when heated or dampened, releasing oxygen and heat of decomposition.

Polymerization

Polymerization will not occur

**11-TOXICOLOGICAL INFORMATION**

Animal Data

Oxone Monopersulfate

Inhalation 4 hour LC50: >5 mg/L in rats

Skin absorption LD50: >11,000 mg/kg in rabbits

Oral LD50: 200 – 2000 mg/kg in rats

Potassium Monopersulfate is a severe skin and eye irritant, but is not a skin sensitizer in animals. Single exposures by inhalation to potassium monopersulfate produced nonspecific effects such as weight loss and slight respiratory irritation. Repeated inhalation exposures produced eye irritation and reversible corneal damage. Administration of large single ingestion doses of potassium monopersulfate produced nonspecific effects such as weight loss and irritation, as well as gastric ulceration, necrosis and hemorrhage. Repeated administration of potassium monopersulfate at a combined dosage of 1000/600 mg/kg for 13 weeks caused pathological changes of the stomach, body weight loss, gasping, noisy respiration, and hunched posture. There were no toxic effects noted at 20 or 200 mg/kg and the no-observed-adverse-effect level (NOAEL) is considered to be 200 mg/kg. Tests for carcinogenic activity or reproductive toxicity have not been performed. A range-finding developmental toxicity study showed developmental effects only at exposure levels producing other toxic effects in the adult animal. Potassium monopersulfate did produce genetic damage in mammalian cell cultures. It did not produce genetic damage in tests on animals, but showed some evidence of bone marrow cell toxicity in female mice.

Sodium Carbonate:

Oral LD50: 4200 mg/kg in rats

The compound is a skin irritant, is a severe eye irritant, but is untested for animal sensitization. Single exposure by inhalation caused respiratory irritation. Repeated exposures caused reduced weight gain and respiratory irritation. No animal data are available to define the carcinogenicity or reproductive hazards of the material. In animal testing, sodium carbonate has not caused developmental toxicity. It does not produce genetic damage in bacterial or mammalian cell cultures or animals, but has not been tested for heritable genetic damage.

**12-ECOLOGICAL INFORMATION**

## Ecotoxicological Information

## Aquatic Toxicity

## Oxone

96 hour LC50, rainbow trout: 53 mg/L

48 hour EC50, daphnia magna: 3.5 mg/L

## Sodium Carbonate

96 hour LC50, daphnia magna: 265-565 mg/L

96 hour LC50, bluegill sunfish: 300-320 mg/L

**13- DISPOSAL CONSIDERATIONS**

## Waste Disposal:

Comply with Federal, State and local regulations. Solutions of unblended potassium monopersulfate greater than 3% by weight have a pH <2.0, and may be a RCRA hazardous waste upon disposal due to the acidic pH characteristic of the solution. If approved, flush to sewer or waste treatment plant. Large quantities should be neutralized with soda ash, as needed to adjust pH.

**14-TRANSPORTATION INFORMATION**

## Shipping Information

## DOT/IMO

Proper Shipping Name: Corrosive, Solid, Acidic, Inorganic N.O.S. (monopersulfate compound)

Hazard Class: 8

UN No.: 3260

DOT/IMO label: II

## Shipping Containers:

Plastic bottles/pails

**15-REGULATORY INFORMATION**

## U.S. Federal Regulations

TSCA Inventory Status: Reported/Included

Title III Hazard Classifications Sections 311, 312

Acute: Yes

Chronic: No

Fire: No

Reactivity: No

Pressure: No

## Lists:

SARA Extremely Hazardous Substance: No

CERCLA Hazardous Material: No

SARA Toxic Chemical: No

**16-OTHER INFORMATION**

Date Prepared: June 2011

Revision Date: December 2014

NPPA, NPCA-HMIS

NPCA-HMIS Rating:

Health: 3

Flammability: 0

Reactivity: 1

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

## SAFETY DATA SHEET

### Section 1 – Identification

Product Name: PoolStyle Winterizing Powder  
 Chemical Names: Quat, Alkyl dimethyl benzyl ammonium chloride  
 Chemical Family: Quaternary Ammonium Compound  
 Description: Winterizer intended for use in swim pools  
 Also Contains: Sodium Carbonate and Sodium Chloride  
 OSHA Hazard Classification: Non-Hazardous

Manufacturer: Qualco, Inc.	Phone No.: 973-473-1222
Address: 225 Passaic Street	Fax No.: 973-473-0535
Passaic, NJ 07055	Emergency: 1-800-424-9300 (Chemtrec)

### Section 2 – Hazards Identification

Quaternary Ammonium Compound Blend:  
 UN: 1993



### Section 3 – Composition/Information on Ingredients

#### PROPRIETARY INFORMATION

INGREDIENT	UN NO.
Quaternary Ammonium Compound Blend	1993
Ethanol/Isopropanol	
Winterizing product used to condition and treat pool water during the winter months	

### Section 4 – First Aid Measures

**SKIN CONTACT:** Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a physician.  
**EYE CONTACT:** Flush immediately with copious amounts of tap water or normal saline solution for a minimum of 15 minutes. Take exposed individual to a physician, preferably an ophthalmologist, for further evaluation.

**INGESTION:** DO NOT INDUCE VOMITING. Rinse mouth with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) or two (2) glasses of water or milk. In cases where the individual is semi-comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of unintentional ingestion of the product, seek medical assistance immediately; take individual to the nearest medical facility.

**INHALATION:** If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek medical attention immediately. If breathing is abnormal, ventilate the lungs with 100% humidified oxygen for 30 minutes every hour until symptom subside

**NOTE TO PHYSICIAN:** No product specific antidote is known. Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptoms.

### Section 5 – Fire Fighting Measures

FLASH POINT: >65°C (PMCC)

EXTINGUISHING MEDIA: Water, foam, dry chemical powder or carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: Do not contaminate oxidizing agents if stored nearby

### Section 6 – Accidental Release Measures

**LARGE SPILLS:** Contain area to prevent spill from spreading. Minimize adverse effects on the environment. Recover as much as possible of the pure product into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Clay, soil or commercially available adsorbents may be used to recover any material that cannot be recovered as pure product. Dispose in approved landfill.

**SMALL SPILLS:** Residual material may not be flushed down municipal sewers.

**PRODUCT DISPOSAL:** Product is a hazardous waste. Dispose in an approved landfill.

### Section 7 – Handling and Storage

**HANDLING PRECAUTIONS:** Rubber gloves and safety glasses or goggles required. Eye wash fountains in the work place are strongly recommended.

**STORAGE CONDITIONS:** Keep cool and dry in a tightly sealed container away from direct sunlight. Do not store close to strong oxidizers or reducing agents. Stainless steel, polypropylene containers are recommended.

### Section 8 – Exposure Controls/Personal Protection

OCCUPATIONAL EXPOSURE LIMIT: 1000 ppm TWA

Rubber gloves and safety glasses or goggles required  
Eye wash fountains in the work place are strongly recommended.  
Body-protective clothing and shoes are recommended.

### Section 9 – Physical and Chemical Properties

APPEARANCE AND ODOR:	Colorless to pale yellow powder, slight odor
SOLUBILITY IN WATER:	Soluble
pH 10% SOLUTION:	11.1
BOILING POINT:	Not applicable
DENSITY:	No data

### Section 10 – Stability and Reactivity

STABILITY: Stable under normal conditions of use and storage

INCOMPATIBILITY: Anionic Polymers and strong oxidizing or reducing agents

HAZARDOUS  
DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen and hydrogen chloride

### Section 11 – Toxicological Information

ACUTE EFFECTS: Oral LD50: 1153 mg/kg by calculation  
Dermal LD50: 7650 mg/kg by calculation

IRRITANT EFFECTS: Irritating to eyes and skin and harmful if swallowed when in concentrated form.

### Section 12 – Ecological Information

May not be flushed down municipal sewers. The product is a strong algaecide and will destroy marine plant life and fish.

### Section 13 – Disposal Considerations

Product is not a hazardous waste. Dispose in an approved landfill.

### Section 14 – Transport Information

DOT SHIPPING: Not applicable

ADR: Directory Class 3 Flammable liquid

### Section 15 – Regulatory Information

US FEDERAL REGULATIONS: Not applicable

REPORTABLE QUANTITY: There is no calculable reportable quantity (RQ) for this product.

CERCLA (Superfund) REPORTABLE QUANTITY: None

FDA APPROVALS:

### Section 16 – Other Information

HAZARD RATINGS	HMIS (III)	NFPA
Health	3	3
Flammability	2	2
Reactivity	0	0
PPE	C	

DATE PREPARED: 12-10-14

#### DISCLAIMER

TERMS AND CONDITIONS: This SDS is designed only as guidance for the product to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor agents, directors, officers, contractors or employees of either) are liable to any party for the damages of any nature, including direct, special or consequential damages arising out of or in connection with accuracy, completeness, adequacy or furnishing of any information in the MSDS, or in any other way related (directly or indirectly) to this MSDS. The receipt and use of this information constitutes consent to these terms and conditions

# SAFETY DATA SHEET

## POOLSTYLE STAIN & SCALE

### SECTION 1 – Chemical Product and Company Identification

MSDS Name: PoolStyle Stain & Scale

Synonyms: Stain Eliminator, HEDP,

Company Identification: Qualco, Inc. / 225 Passaic Street / Passaic, NJ 07055

Company Phone Number: 973-473-1222

Emergency Phone Number: CHEMTREC – 1-800-424-9300

### SECTION 2 – Hazards Identification

Avoid breathing vapors or spray mists. Corrosive to eyes, irritating to the skin and respiratory systems.

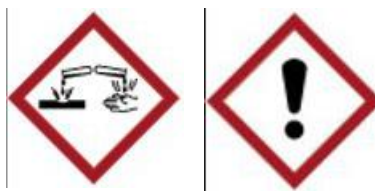
#### Primary Route(s) of Entry:

Ingestion: ( )

Inhalation: (X)

Skin Contact: (X)

Eye Contact: (X)



#### Primary Health Hazards (Acute and Chronic):

##### Acute:

**Ingestion:** Ingestion is not expected to be a primary route of exposure.

**Inhalation:** May be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will depend upon solution strength and length of time of exposure.

**Skin Contact:** Hazardous in case of skin contact may produce burns. Itching, scaling, redness or occasional blistering characterizes skin inflammation.

**Eye Contact:** Very hazardous in case of eye contact (irritant, corrosive), redness watering and itching characterize inflammation of the eye.

##### Chronic:

Not toxic to aquatic organisms and not suspected of long term adverse effects in the aquatic environment.

#### Carcinogenicity Listings:

OSHA: ( )

NTP: ( )

IARC: ( )

#### Signs & Symptoms of Exposure

Ingestion:

Inhalation:

Skin Contact:

Eye Contact:

### SECTION 3 – Composition/Information on Ingredients

CAS NOS.: 2809-21-4

Chemical Name: 1-hydroxyethylidene-1, 1-disphosphonic acid

Also Contains: citric acid and water



## **SECTION 4 – First Aid Measures**

### **Emergency and First Aid Procedures:**

**Ingestion:** DO NOT induce vomiting. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one or two glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi comatose, comatose, or convulsing, DO NOT give fluids by mouth. In case of intentional ingestion of the product, seek medical assistance immediately; take individual to nearest medical facility.

**Inhalation:** If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty breathing, or is cyanotic, seek medical attention immediately.

**Skin Contact:** Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional.

**Eye Contact:** Flush immediately with copious amounts of tap water or normal saline solution for a minimum of 15 minutes. Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluations.

## **SECTION 5 – Fire Fighting Measures**

### **Fire and Explosion Hazard Data:**

**Flash Point (Closed Cup):** >100oC (212oF). (Tagliabue).

**Flammable Limits:** Not Available

LEL:

UEL:

**Extinguishing Media:** Water fog, carbon dioxide, foam, dry chemical.

**Special Fire-fighting Procedures:** Fire fighters should wear positive pressure self-contained breathing apparatus. (SCBA) and full turnout gear.

**Unusual Fire and Explosion Hazards:** None known

## **SECTION 6 – Accidental Release Measures**

**Steps To Be Taken In Case Material Is Spilled Or Released:** IMPORTANT: Before responding to spill or leak from this product, review each section of this MSDS. Follow the recommendations given in the Handling Precaution sections. Check the Fire and Explosion Data section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of affected areas.

Initially minimize area affected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the products toxicological and chemical properties, and on the size and location of the spill, or leak access, the impact on contaminated environments (e.g. water systems, ground air equipments, etc.), there are not methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. Determine if Federal, State and/or local release notification is required. Recover as much of the pure product as possible into appropriate containers. Later determine if this recovered product can be used for its intended purpose. Address clean up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay, soil, or commercially available absorbents may be used to recover any material that cannot readily be recovered as pure product.

Flushing residual material to an industrial sewer, if present at the site of a spill, or leak incident, may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials.

## **SECTION 7 – Handling and Storage**

**Precautions To Be Taken In Handling and Storage:** Rubber gloves, safety glasses or goggles , body protective clothing and shoes are required. Eyewash fountains in the workplace are recommended. If splashing can occur, a face shield is advisable. Provide dilution ventilation to control vapor and/or mist level. When misting may occur in the work area, a NIOSH/MSHA approved respirator may be required. Use a respirator approved for the material and level of exposure. A comprehensive respiratory protection program is needed when respirators must be used. The handling precautions for this product are based on characteristics of the neat product unless otherwise specified.

**Other Precautions:**

## **SECTION 8 – Exposure Controls, Personal Protection**

**Respiratory Protection:** When misting may occur in the work area, a NIOSH/MSHA approved respirator may be required. Use a respirator approved for the material and level of exposure. A comprehensive respiratory protection program is needed when a respirator must be used.

**Ventilation:** Provide dilution ventilation to control vapor and/or mist level.

Local Exhaust:

Mechanical Exhaust:

**Other Protective Clothing or Equipment:** Rubber gloves, safety glasses or goggles, body protective clothing and shoes are required.

**Work/Hygienic Practices:** Eye wash fountains in the work place are recommended.

## **SECTION 9 – Physical and Chemical Properties**

**Boiling Point:** 100°C (212°F)

**Vapor Pressure (mm Hg):** 17 mm of Hg (@20°C)

**Vapor Density (Air=1):** 1.46 g/cm<sup>3</sup> @20°C (68°F)

**Solubility in Water:** Soluble in cold or hot water

**Appearance:** Clear colorless liquid

**Odor:** Characteristic odor

**Specific Gravity:** (H<sub>2</sub>O=1)

**Percent Volatile by Volume:**

**Melting Point:** Not available

**Evaporation Rate:**

**pH (Neat):** Not Available

**pH (100 ppm in water):** Not available

**o/w Partition Coefficient:** Not available

**Oxidizing/Reducing Properties:** Not available

**Viscosity: Dynamic:** 64 Cp

**Additional pH Information:** pH (1% solution) = 2.0

## SECTION 10 – Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:**

**Incompatibilities with Other Materials:** Strong oxidizers, strong bases.

**Hazardous Decomposition Products:** Oxides of both phosphorous and carbon; acids of phosphorous.

**Hazardous Polymerization:** Has not been reported.

## SECTION 11 – Toxicological Information

**Acute Toxicity:**

**Acute Oral:** LD50=2000 mg/kg Rat

**Acute Dermal:** LD50=10000 mg/kg rabbit

**Irritant Sensitization Effects:** Very hazardous in case of eye contact (irritant, corrosive). Redness, watering and itching characterize inflammation of the eye. Hazardous in case of skin contact (irritant). Non-corrosive for skin. Non-sensitizer for skin. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or occasional blistering.

**Target Organ Toxicity:** May cause damage to the following organs: blood, gastrointestinal tract, upper respiratory tract, skin, eyes, bones.

**Reproductive and Development Toxicity:**

**Carcinogenicity:** Not shown as a carcinogen by OSHA, IARC, or NTP.

**Mutagenicity:**

Other Health Effects: None Known.

## SECTION 12 – Ecological Information

**Aquatic Toxicity:** Non-toxic to aquatic organisms and not suspected to long-term adverse effects in the aquatic environments.

LC50=>368 mg/l 96 hours Rainbow trout

LC50=527 mg/l 48 hours Daphnia magna

**Avian Toxicity:**

## SECTION 13 – Disposal Considerations

**Waste Disposal Method:** Follow Federal, State and local regulations governing the disposal of waste materials.

**Contaminated Materials:** Determine if waste containing this product can be handled by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management.

## SECTION 14 – Transport Information

**US DOT**

**Shipping Name:** Not Regulated

**Hazard Class:** Not applicable

**UN Number:** Not applicable

**Packing Group:** Not applicable

## **SECTION 15 – Regulatory Information**

### **SARA Title III:**

**Section 302 Extremely Hazardous Substances List:** No components of this product are listed.

**Section 312 Hazard Category:** Immediate (Acute) Health Hazard

**Section 313 Toxic Chemical List:** No components of this product are present above the de minimus levels

**CERCLA:** No components of this product are above de minimus levels.

**FIFRA:** This product is not a registered pesticide.

### **HMIS/NPCA Rating:**

Health=2      Flammability=1      Reactivity= 1

### **NFPA Ratings:**

Health=2      Flammability=1      Reactivity=1

### **State Regulations:**

Various State Right To Know Acts: Non-proprietary hazardous chemicals are listed in Section II of this MSDS

## **SECTION 16 – Other Information**

**MSDS Creation Date:** June 2010

**Revision Date:** December 2014

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.