# Safety Data Sheet: CHEM-AQUA 16190

**Supercedes Date** 04/25/2014 **Issuing Date** 11/12/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** CHEM-AQUA 16190
**Recommended use** Water treatment chemical
**Information on Manufacturer**
CHEM-AQUA, INC
BOX 152170
IRVING, TEXAS 75015

**Product Code** 5T3Z
**Chemical nature** Aqueous solution Alkaline
**Emergency Telephone Number**
CHEMTREC® 800-424-9300
**Telephone inquiry**
972-579-2477

## 2. HAZARD IDENTIFICATION

**Color** Colorless - Light yellow **Physical State** Liquid **Odor** Slight Ammoniacal

**GHS**
**Classification**

*Physical Hazards*

| | |
|---|---|
| Substances/mixtures corrosive to metal | Category 1 |

*Health Hazard*

| | |
|---|---|
| Skin Corrosion/Irritation | Category 1 |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Respiratory Sensitization | Category 1 |
| Skin Sensitization | Category 1 |
| Specific target organ systemic toxicity (single exposure) | Category 3 |
| Specific target organ systemic toxicity (repeated exposure) | Category 2 |

*Other hazards*
None

**Labeling**
*Signal Word*
**DANGER**

*Hazard Statements*
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H336 - May cause drowsiness or dizziness
H373 - May cause damage to organs through prolonged or repeated exposure
H290 - May be corrosive to metals

*Precautionary Statements*
P280 - Wear protective gloves, protective clothing, eye protection and face protection.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace
P260 - Do not breathe mist or vapors
P271 - Use in a well-ventilated area.
P285 - In case of inadequate ventilation wear respiratory protection
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water
P333 - If skin irritation or rash occurs get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a physician
P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311 - If experiencing respiratory symptoms, call a physician
P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P406 - Store in a corrosion-resistant container.
P390 - Absorb spillage to prevent damage
P501 - Dispose of contents and container in accordance with applicable regulations.

5 % of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Component | CAS-No | Weight % |
|---|---|---|
| Sodium sulfite | 7757-83-7 | 10-30 |
| 2-Diethylaminoethanol | 100-37-8 | 5-10 |
| 2-Propenoic acid, polymer with sodium phosphinate | 71050-62-9 | 1-5 |
| Sodium hexametaphosphate | 10124-56-8 | 1-5 |

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## 4. FIRST AID MEASURES

**General advice** Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.

**Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.

**Skin Contact** Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

**Inhalation** Move to fresh air. In case of shortness of breath, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

**Ingestion** Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

**Notes to physician** The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed. May cause sensitization of susceptible persons.

## 5. FIRE-FIGHTING MEASURES

**Flash Point** Does not flash **Method** Pensky Marten Closed Tester

**Flammability Limits in Air %** Hydrogen, by reaction with metals. **Upper** 75 **Lower** 4

**Suitable Extinguishing Media**

Water spray. Foam. Carbon dioxide (CO2). Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Specific hazards arising from the chemical**

Contact with metals may evolve flammable hydrogen gas. Material can create slippery conditions.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA** **Health** 3 **Flammability** 1 **Instability** 0

**HMIS** **Health** 3 **Flammability** 1 **Instability** 0

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for Containment** Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**Methods for Cleaning Up** Pick up and transfer to properly labeled containers.

**Neutralizing Agent** Acetic acid, diluted.

## 7. HANDLING AND STORAGE

**Handling** Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.

**Storage** Store in original container. Metal containers must be lined. Keep containers tightly closed in a dry, cool and well-ventilated place. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

**Storage Temperature** **Minimum** 55 °F / 13 °C **Maximum** 110 °F / 43 °C

**Storage Conditions** **Indoor** X **Outdoor** **Heated** **Refrigerated**

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines** ***

| Component | ACGIH TLV | OSHA PEL | NIOSH |
|---|---|---|---|
| 2-Diethylaminoethanol | TWA: 2 ppm<br>Skin | TWA: 10 ppm<br>TWA: 50 mg/m$^3$<br>Skin | 100 ppm<br>TWA: 10 ppm<br>TWA: 50 mg/m$^3$ |

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

**Personal Protective Equipment**

**Eye/Face Protection** Tightly fitting safety goggles. Face-shield.
**Skin Protection** Wear suitable protective clothing, Impervious gloves.
**Respiratory Protection** In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
**General Hygiene Considerations** Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| **Physical State** | Liquid | **Viscosity** | Non viscous |
| **Color** | Colorless - Light yellow | **Odor** | Slight Ammoniacal |
| **Odor Threshold** | No data available | **Appearance** | Transparent |
| **pH** | 11.5 | **Specific Gravity** | 1.152 |
| **Evaporation Rate** | 0.46 (Butyl acetate=1) | **Percent Volatile (Volume)** | 91 |
| **VOC Content (%)** | 9.0 | **VOC Content (g/L)** | 102 |
| **Vapor Pressure** | 14.6 mmHg @ 70°F | **Vapor Density** | 0.6 (Air = 1.0) |
| **Solubility** | Completely soluble | **n-Octanol/Water Partition** | No data available |
| **Melting Point/Range** | No data available | **Decomposition Temperature** | No data available |
| **Boiling Point/Range** | > 212 °F / 100 °C | **Flammability (solid, gas)** | No data available |
| **Flash Point** | Does not flash | **Method** | Pensky Marten Closed Tester |
| **Autoignition Temperature** | No information available. | | |
| **Flammability Limits in Air %** | Hydrogen, by reaction with metals. | **Upper** 75 **Lower** 4 | |

## 10. STABILITY AND REACTIVITY

**Chemical Stability** Stable. Hazardous polymerization does not occur.
**Conditions to Avoid** None known
**Incompatible Products** Strong oxidizing agents, Acids, Highly halogenated compounds, Nitriles, Metal nitrates, Under certain conditions, may react with nitrites or other nitrosating agents to form carcinogenic nitrosamines.
**Hazardous Decomposition Products** Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides, Oxides of phosphorus, Phosphorus compounds, Ammonia, Hydrogen, by reaction with metals.
**Possibility of Hazardous Reactions** None under normal processing

## 11. TOXICOLOGICAL INFORMATION

Product Information No information available.

**The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):**
**Oral LD50** No information available
**Dermal LD50** No information available
**Inhalation LC50**
**Gas** No information available
**Mist** No information available
**Vapor** No information available

**Principle Route of Exposure** Skin contact, Eye contact, Inhalation.
**Primary Routes of Entry** Inhalation, Skin Absorption, Ingestion.
**Acute Effects**
**Eyes** Corrosive to the eyes and may cause severe damage including blindness.
**Skin** Causes skin burns. May be absorbed through the skin in harmful amounts. May cause allergic skin reaction.
**Inhalation** Harmful by inhalation. Causes burns. May cause allergic respiratory reaction. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
**Ingestion** If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
**Chronic Toxicity** Inhaled corrosive substances can lead to a toxic edema of the lungs. May cause sensitization by skin contact. May cause sensitization by inhalation.
**Target Organ Effects** Respiratory system, Central nervous system, Kidney, Immune system, Skin, Eyes.
**Aggravated Medical Conditions** Respiratory disorders, Skin disorders, Neurological disorders, Kidney disorders.

Component Information

**Acute Toxicity**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation | Draize Test | Other |
|---|---|---|---|---|---|
| Sodium sulfite | = 820 mg/kg ( Rat ) | no data available | > 22 mg/L ( Rat ) 1 h | no data available | no data available |
| 2-Diethylaminoethanol | = 1320 mg/kg ( Rat ) | = 1 mL/kg ( Rabbit ) | no data available | no data available | no data available |
| Sodium hexametaphosphate | = 2400 mg/kg ( Rat ) | no data available | no data available | no data available | no data available |

| Component | Mutagenicity | Sensitization | Developmental Toxicity | Reproductive Toxicity | Target Organ Effects |
|---|---|---|---|---|---|
| Sodium sulfite | no data available | Skin sensitization, respiratory sensitization | no data available | no data available | Respiratory system, Immune system, CNS |
| 2-Diethylaminoethanol | no data available | skin sensitization | no data available | no data available | eyes, respiratory system, skin, immune system |

**Carcinogenicity**

| Component | ACGIH | IARC | NTP | OSHA | Other |
|---|---|---|---|---|---|
| Sodium sulfite | not applicable | Group 3 | not applicable | not applicable | not applicable |

## 12. ECOLOGICAL INFORMATION

Product Information

Component Information

| Component | Toxicity to Algae | Toxicity to Fish | Microtox | Water Flea | log Pow |
|---|---|---|---|---|---|
| Sodium sulfite | no data available | no data available | EC50 = 770 mg/L 17 h | no data available | -4 |
| 2-Diethylaminoethanol | EC50 = 30 mg/L Desmodesmus subspicatus 72 h | LC50 1660 - 1920 mg/L Pimephales promelas 96 h | no data available | 83.6: 48 h Daphnia magna Straus mg/L EC50 | 0.21 |

**Persistence and Degradability** No information available.
**Bioaccumulation** No information available.
**Mobility** No information available.

## 13. DISPOSAL CONSIDERATIONS

**Product Disposal** Dispose of in accordance with local regulations.
**Container Disposal** Empty containers should be taken for local recycling, recovery, or waste disposal.

## 14. TRANSPORT INFORMATION

**DOT**

**Proper Shipping Name** Amines, liquid, corrosive, n.o.s.
**Hazard Class** 8
**UN-No** UN2735
**Packing Group** II
**Description** UN2735, Amines, liquid, corrosive, n.o.s.,(2-Diethylaminoethanol), 8, PG II

**TDG**

**Hazard Class** 8
**UN-No** UN2735
**Packing Group** II

**ICAO**

**UN-No** UN2735
**Proper Shipping Name** Amines, liquid, corrosive, n.o.s.
**Hazard Class** 8
**Packing Group** II
**Shipping Description** UN2735, Amines, liquid, corrosive, n.o.s.,(2-Diethylaminoethanol ),8,PG II

**IATA**

**UN-No** UN2735
**Proper Shipping Name** Amines, liquid, corrosive, n.o.s.
**Hazard Class** 8
**Packing Group** II
**ERG Code** 8L
**Shipping Description** UN2735,Amines, liquid, corrosive, n.o.s.,(2-Diethylaminoethanol ),8,PG II

**IMDG/IMO**

**Proper Shipping Name** Amines, liquid, corrosive, n.o.s.
**Hazard Class** 8
**UN-No** UN2735
**Packing Group** II
**EmS No.** F-A, S-B
**Shipping Description** UN2735, Amines, liquid, corrosive, n.o.s.,(2-Diethylaminoethanol),8,PG II

## 15. REGULATORY INFORMATION

**Inventories**

| | |
|---|---|
| **TSCA** | Complies |
| **DSL** | Complies |

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

| Acute Health Hazard | Chronic Health Hazard | Fire Hazard | Sudden Release of Pressure Hazard | Reactive Hazard |
|---|---|---|---|---|
| Yes | Yes | No | No | No |

**CERCLA**

## 16. OTHER INFORMATION

| | |
|---|---|
| **Prepared By** | Adrienne McKee |
| **Supercedes Date** | 04/25/2014 |
| **Issuing Date** | 11/12/2014 |
| **Reason for Revision** | No information available. |
| **Glossary** | No information available. |
| **List of References.** | No information available. |

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