


## POOL CARE SHOCK SDS

<b>SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION</b>	
Product Name: Pool Care Shock	
Chemical Name: Calcium Hypochlorite Hydrated, cal hypo, Product Use: This product is used as a disinfectant, algaecide, sanitizer, bactericide, fungicide. This is a pesticide product. DO NOT use it in a pesticide application that is not included on its label.	
Manufacturer: Qualco, Inc. 225 Passaic Street Passaic, NJ 07055 Telephone: 973-473-1222 Fax: 973-473-0535 Emergency: 1-800-424-9300 (ChemTrec)	Supplied by: Baystate Pool Supplies, Inc. 26 Smith Place Cambridge, MA 02138 Telephone: 617-547-9145 Fax: 617-547-8787 Emergency: 1-800-424-9300 (ChemTrec)
<b>SECTION 2 – HAZARDS IDENTIFICATION</b>	
<b>OSHA REGULATORY STATUS:</b> This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)	
<b>EMERGENCY OVERVIEW</b> Color: White Physical State: Solid Appearance: Granular, Crystal Odor: Slight chloride odor Signal Word: DANGER	
<b>MAJOR HEALTH HAZARDS:</b> CORROSIVE. CAUSE SERIOUS EYE DAMAGE. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. MAY BE FATAL IF INHALED. HARMFUL IF SWALLOWED.	
<b>PHYSICAL HAZARDS.</b> DANGER. CORROSIVE. Causes severe and irreversible burns to eye and skin. Harmful if inhaled. May cause irritation and inflammation to the respiratory tract. Harmful or fatal if swallowed. Strong Oxidizing Agent. Mix only with water. Never add water to product. Always add the product to large quantities of water. Do not mix with any other chemicals. Contamination with moisture, acids, organic materials and other easily combustible materials such as petroleum, paint products, wood, or paper may cause fire or explosion and the liberation of hazardous gases. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Very toxic to aquatic organisms. <b>Precautions:</b> Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Irritating to nose and throat. Do not swallow. Do not eat, drink or smoke in work area. Wash hands after handling. Remove and wash contaminated clothing before reuse. Keep out of reach of children.	
<b>AQUATIC TOXICITY:</b> Very toxic to aquatic organisms. Very toxic to aquatic life with long lasting effects.	
<b>PRECAUTIONARY STATEMENTS:</b> Do not get in eyes, on skin, or on clothing. Wear eye protection, face protection, protective gloves. Do not breathe dusts or mists. Use outdoors or in a well-ventilated area. Wash hands and affected skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not get water inside container, an explosion hazard. Oxidizer, keep separated from incompatible substances.	
<b>ADDITIONAL HAZARD INFORMATION:</b> This material is corrosive. Product has strong buffering capability, Use dilution. May cause burns to moist skin if not promptly removed. There is no specific antidote.	
<b>GHS CLASSIFICATION:</b>	

<p>GHS CONTACT HAZARD – SKIN  GHS CONTACT HAZARD – EYE  GHS ACUTE TOXICITY – INHALATION  GHS ACUTE TOXICITY – ORAL  GHS ACUTE TOXICITY – DERMAL  GHS: TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  GHS: CARCINOGENICITY:   GHS: HAZARDOUS TO AQUATIC ENVIRONMENT – ACUTE HAZARD:  GHS: HAZARDOUS TO AQUATIC ENVIRONMENT – CHRONIC HAZARD</p>	<p>Category 1C – Causes severe skin burns and eye damage  Category 1C – Causes serious eye damage  Category 2 – Fatal if inhaled  Category 4 – Harmful if swallowed  Not acutely toxic by dermal exposure  Category 3 – May cause respiratory tract irritation   This product is not classified as a carcinogen by NTP, IARC or OSHA  Category 1 – Very toxic to aquatic life   Category 1 – Very toxic to aquatic life with long lasting effects</p>
<p><b>UNKNOWN ACUTE TOXICITY:</b> Not applicable. 100% of this product consists of ingredient(s) of known acute toxicity.</p>	
<p><b>GHS SYMBOL:</b> Corrosion, Skull and Crossbones, Exclamation Mark, Environmental Hazard, Oxidizer</p> 	
<p><b>GHS SIGNAL WORD: DANGER</b></p>	
<p><b>GHS HAZARD STATEMENTS:</b>  <b>GHS-Health Hazard Statement(s):</b> Causes severe skin burns and eye damage. Causes serious eye damage. Fatal if inhaled. Harmful if swallowed. May cause respiratory irritation.  <b>GHS-Environmental Hazard Statement(s):</b> Very toxic to aquatic life. Very toxic to aquatic life with long-lasting effects.  <b>GHS-Precautionary Statement(s)-Prevention:</b> Do not breathe dust, fumes, gas, mist, vapors or spray mists. In case of inadequate ventilation, wear respiratory protection. Wear protective gloves, protective clothing, eye and face protection. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well ventilated area. Avoid release to the environment.  <b>GHS-Precautionary Statement(s)-Response:</b>  IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatment is urgent (see Section 4 of SDS or first aid information on this label).  IF ON SKIN/HAIR: Remove all contaminated clothing immediately. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse.  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for 15 minutes Get immediate medical attention.  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if feel unwell. Specific treatment (see First Aid information on product label and/or Section 4 of the SDS). Collect spillage.  <b>GHS-Oxidizer:</b> 5.1 Oxidizer</p>	

<b>GHS-Precautionary Statement(s)-Storage:</b> Store in a well ventilated area. Keep container tightly closed when not in use. Store locked up.		
<b>GHS-Precautionary Statement(s)-Disposal:</b> Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.		
<b>Hazards Not Otherwise Classified (HNOC):</b> Damp or wet material may generate nitrogen an explosion hazard. Contact with acids liberates toxic gas. See Section 11 (Toxicological Information).		
<b>3. COMPOSITION/INFORMATION ON INGREDIENTS</b>		
<b>Synonyms:</b> calcium hypochlorite hydrated, cal hypo		
<b>Component</b>	<b>Percent (%)</b>	<b>CAS Number</b>
Calcium hypochlorite, hydrated	>65	7778-54-3
Calcium Chlorate	<2	10137-74-3
Calcium Chloride	<2	10043-52-4
Calcium Carbonate	<2	471-34-1
Calcium Hydroxide	<2	1305-62-0
Sodium Chloride	>10	7647-14-5
<b>4. FIRST AID MEASURE</b>		
<b>INHALATION:</b> If inhalation of dust occurs and adverse effects result, remove to uncontaminated area. Evaluate ABC's (is Airway constricted, is breathing occurring and is blood circulating) and treat symptomatically. GET IMMEDIATE MEDICAL ATTENTION. There is no specific antidote; treat symptomatically.		
<b>SKIN CONTACT:</b> Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry and shoes. Wash contaminated areas with large amounts of water. GET MEDICAL ATTENTION IMMEDIATELY. Thoroughly clean and dry contaminated clothing before reuse.		
<b>EYE CONTACT:</b> Immediately flush contaminated clothing with a directed stream of water for as long as possible. Remove contact lenses, if present, then continue rinsing. GET MEDICAL ATTENTION IMMEDIATELY.		
<b>INGESTION:</b> If swallowed do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious or convulsive person. GET MEDICAL ATTENTION IMMEDIATELY.		
<b>Most Important Symptoms/Effects (Acute and Delayed)</b>		
<b>Acute Symptoms/Effects:</b> Listed below		
<b>Inhalation (Breathing):</b> Respiratory System Effects: Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure.		
<b>Skin:</b> Skin Corrosion. Exposure to solid along with moisture may cause redness, irritation, burning sensation, swelling blister formation, first, second or third degree burns.		
<b>Eye:</b> Serious eye damage. Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.		
<b>Ingestion (Swallowing):</b> Gastrointestinal Effects: Exposure by ingestion may cause irritation, nausea and vomiting. May cause local tissue damage to esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding.		
<b>Delayed Symptoms/Effects:</b>		
Repeated and prolonged skin contact may cause a dermatitis.		

**Interaction with Other Chemicals Which Enhance Toxicity:** Contacts with acids liberates toxic gas  
**Medical Conditions Aggravated by Exposure:** May aggravate pre-existing conditions such as eye disorders that decrease tear production or have reduced integrity of the eye, skin disorders that compromise the integrity of the skin, and respiratory conditions including asthma and other breathing disorders.

**Protection of First-Aiders:** Protect yourself by avoiding contact with this material. Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations. Avoid contact with skin and eyes. Do not ingest. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

**Notes to Physician:** Treat as a corrosive substance. This material is more irritating to the skin and eyes in the presence of water. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no antidote. Cyanuric acid is readily removed from the body via the renal system, and is not bioaccumulated Treatment is supportive care. Follow normal parameters for airway, breathing and circulation.

### 5. FIRE-FIGHTING MEASURES

**Fire Hazard:** Negligible fire hazard. If heated by outside source to temperatures above 240°C (484°F), this product will undergo decomposition with the evolution of noxious gases but no visible flame. Wet material may generate nitrogen trichloride, an explosion hazard.

**Extinguishing Media:** Flood with copious amounts of water. Do not use ABC fire extinguishers. Do not use dry chemicals, carbon dioxide, or halogenated extinguishing agents.

**Fire Fighting:** Consider evacuation of personnel located downwind. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Wear NIOSH approved positive-pressure self-container breathing apparatus operated in pressure demand mode. Material which appears undamaged except for being damp on the outside should be opened and inspected immediately. DO NOT attempt to reseal contaminated drums. Damp material should be neutralized to a non-oxidizing state. Contact supplier for instructions for handling and disposal of damp material.

Hazardous Combustion Products: Chlorine, Nitrogen, Nitrogen trichloride, Cyanogen chloride, Oxides of carbon, Phosgene

Sensitivity to Mechanical Impact: Not sensitive

Sensibility to Static Discharge: Not sensitive

Lower Flammability Level (air): Not flammable

Upper Flammability Level (air): Not flammable

Flash Point: Not applicable

Auto-ignition Temperature: Not determined

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Keep unnecessary and unprotected persons away. Isolate hazard area and deny entry. Do not get in eyes, on skin or on clothing. Do not breathe dust, fume, gas, mist, vapors, or spray. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls/Personal Protection of the SDS

**Methods and Materials for Containment and Cleaning Up:** DO NOT add water to spilled material. DO NOT use floor sweeping compounds to clean up spills. Sweep and scoop spilled material into clean, dedicated equipment. Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up. DO NOT attempt to reseal contaminated drums. DO NOT

transport wet or damp material. Damp material should be neutralized to a non-oxidizing state. Contact supplier for instructions for handling and disposal of damp material.

**Environmental Precautions:**

This material is very toxic to aquatic life. This material is very toxic to aquatic life with long lasting effects. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

**7. HANDLING AND STORAGE**

**Precautions for Safe Handling:**

Do not get in eyes, on skin or on clothing. Avoid breathing vapors or dust when opening container. Avoid creation of dust. Wash thoroughly after handling. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. NEVER add water to this product. Always add product to large quantities of water. Use clean, dry utensils. Do not add the product to any dispensing device containing residuals of other products. Keep away from heat, sparks, flame and other sources of ignition.

**Safe Storage Conditions:**

Store and handle in accordance with all current regulations and standards. (NFPA Oxidizer Class 1). Store away from open flames and combustibles. Do not allow water to get in container. If liner is present, tie after each use. Keep container tightly closed and properly labeled. Store containers on pallets. Keep away from food, drink and animal feed. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet). Product has an indefinite shelf life if stored in original container in a cool, dry place.

**Incompatibilities/Materials to Avoid:**

Acids, ammonia, bases, floor sweeping compounds, calcium hypochlorite, reducing agents, organic solvents and compounds

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Regulatory Exposure Limit(s):** None. This product does not contain any components that have regulatory occupational exposure limits (OEL's) established.

**OEL: Occupational Exposure Limit, OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit**

**Non-Regulatory Exposure Limit(s):** None. This product does not contain any components that have advisory (non-regulatory) occupational exposure limits (OEL's).

**The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).**

The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLV's) for hundreds of chemicals, physical agents and biological exposure indices.

**Additional Advice:** Chlorine and chlorine compounds may be found in slight amounts in the head space of containers of this product.

**ENGINEERING CONTROLS:** Use only in well-ventilated areas. Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Wear safety glasses with side shields..Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Wear protective clothing to minimize skin contact. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure such as Tyvek®. Contaminated clothing should be removed and laundered before reuse.

**Hand Protection:** Wear appropriate chemical resistant gloves. Consult a glove manufacturer for assistance in selecting an appropriate chemical resistant glove.

**Protective Material Types:** Butyl rubber, Natural rubber, Neoprene, Nitrite, Polyvinyl chloride (PVC), Tyvek®.

**Respiratory Protection:** A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. The added protection of a full face piece respirator is required when visible dusty conditions are encountered and eye irritation may occur. Acid gas cartridges with N95 filters are required when fumes or vapor may be generated. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Solid
<b>Appearance:</b>	Granular, Crystal
<b>Color:</b>	White
<b>Odor:</b>	Slight chlorine odor
<b>Odor Threshold (ppm):</b>	Not available
<b>Molecular Weight:</b>	143.00 (Active Ingredient)
<b>Decomposition Temperature:</b>	486°F (252°C) dehydrates at 104°F-212°F (40°C-100°C)
<b>Boiling Point/Range:</b>	Not applicable
<b>Freezing Point/Range:</b>	Not applicable
<b>Melting Point Range:</b>	Not Applicable
<b>Vapor Pressure:</b>	Not available (@ 25°C)
<b>Vapor Density (air=1)</b>	Not applicable
<b>Relative Density/Specific Gravity (water=1)</b>	1.95 g/ml @ 25°C
<b>Density:</b>	0.8 g/cc
<b>Bulk Density:</b>	56-60 lbs/ft <sup>3</sup> (loose)
<b>Water Solubility:</b>	18% (@ 25°C) Product also contains calcium hydroxide and calcium carbonate which will leave a residue
<b>pH:</b>	10.4-10.8 @ 25°C (1% solution)
<b>Volatility:</b>	Not applicable
<b>Evaporation Rate (ether=1)</b>	Not applicable
<b>Partition Coefficient (in-octanol water):</b>	No data
<b>Flash Point:</b>	Not applicable
<b>Flammability (solid, ga):</b>	Not flammable
<b>Lower Flammability Level (air):</b>	Not flammable
<b>Upper Flammability Level (air):</b>	Not flammable
<b>Auto-ignition Temperature:</b>	Not determined
<b>Viscosity:</b>	Not applicable

### 10. STABILITY AND REACTIVITY

<p><b>Reactivity:</b> Not reactive under normal temperatures and pressures.</p> <p><b>Chemical Stability:</b> Stable at normal temperatures and pressures.</p> <p><b>Possibility of Hazardous Reactions:</b> Do not get water inside container. Wet material may generate nitrogen trichloride, an explosion hazard. Avoid contact with easily oxidizable organic material. Contact with acids liberates toxic gas.</p> <p><b>Conditions to Avoid:</b> (e.g. static discharge, shock, or vibration) – None known.</p> <p><b>Incompatibilities / Materials to Avoid:</b> Acids, ammonia, bases, floor sweeping compounds, calcium hypochlorite, reducing agents, organic solvents and compounds.</p> <p><b>Hazardous Decomposition Products:</b> Chlorine, nitrogen, nitrogen trichloride, cyanogens chloride, oxides of carbon phosgene.</p> <p><b>Hazardous Polymerization:</b> Will not occur.</p>			
<b>11. TOXICOLOGICAL INFORMATION</b>			
<p><b>IRRITATION DATA:</b> PRIMARY SKIN IRRITATION. Severe irritation. Corrosive (rabbit 24 hr).</p> <p><b>PRIMARY EYE IRRITATION:</b> Severe irritation, Corrosive (rabbit, 24 hr)</p> <p><b>TOXICITY DATA:</b></p> <p><b>PRODUCT TOXICITY DATA:</b> Calcium Hypochlorite</p>			
<b>LD50 Oral:</b> 1823 mg/kg (Rat)	<b>LD50 Dermal:</b> >2000 mg/kg (Rabbit)	<b>LC50 Inhalation:</b> >0.27 - < 1.17 mg/L (4 hr – Rat)	
<p><b>COMPONENT TOXICITY DATA:</b></p> <p><b>Note:</b> The component toxicity data is populated by the LOLI database and may differ from the product toxicity data given</p>			
<b>Component</b>	<b>LD50 Oral:</b>	<b>LD50 Dermal:</b>	<b>LC50 Inhalation:</b>
Calcium Hypochlorite CAS #7778-54-3	850 mg/kg (Rat)	2000 mg/kg (Rabbit)	50 mg/l (1 hr-Rat)
Sodium Chloride CAS #7647-14-5	3000 mg/kg (Rat)	10 g/kg (Rabbit)	42 g/m3 (1 hr-Rat)
<p><b>POTENTIAL HEALTH EFFECTS:</b></p> <p><b>Eye Contact:</b> Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.</p> <p><b>Skin Contact:</b> Exposure to solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second or third degree burns. Dry material is less irritating than wet material. This material is not a skin sensitizer based on studies with guinea pigs.</p> <p><b>Inhalation:</b> This material in the form as solid is not expected to produce respiratory effects. Particles of respirable size are generally not encountered. The respirable fraction is typically less than 0.1% by weight for the granular and extra granular grades. If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur. Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, bronchoconstriction and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure.</p> <p><b>Ingestion:</b> Exposure by ingestion may cause irritation, nausea and vomiting. May cause local tissue damage to epiglottis, mucous membranes of the mouth, esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding.</p> <p><b>Chronic Effects:</b> None identified for the parent chemical. Based on animal studies, exposure to concentrations of monosodium cyanurate at the solubility limit may cause cardiovascular, kidney and</p>			

urinary bladder effects.

**SIGNS AND SYMPTOMS OF EXPOSURE:**

Listed below:

**Inhalation (Breathing):** Respiratory System Effects: Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngeospasm, and edema. The pulmonary edema may develop several hours after a severe acute exposure.

**Skin:** Skin Corrosion. Exposure to solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second or third degree burns.

**Eye:** Serious eye damage. Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.

**Ingestion (Swallowing):** Gastrointestinal Effects: Exposure by ingestion may cause irritation, nausea, and vomiting. May cause local tissue damage to esophagus and stomach such as burning, inflammation, local ulceration and may cause gastrointestinal bleeding.

**TOXICITY:**

Monosodium cyanurate was administered via drinking water to rats for 104 weeks at concentrations of 0, 400, 1200, 2400 and 5375 ppm (solubility limit). No compound-related effects on body weights, clinical signs of toxicity or food or water consumption were noted during the study. An increased incidence of gross lesions in the urinary tract, calculi in the kidney and lesions in the heart were observed in males receiving the highest dose level of 5375 ppm (solubility limit). The health effects seen in this study were due to precipitation of the test substance in the urinary tract when the test substance was fed at the solubility limit. Adverse health effects were not seen at lower doses where precipitation did not occur.

**Interaction with Other Chemicals Which Enhance Toxicity:** Contact with acids liberates toxic gases

**GHS HEALTH HAZARDS**

**GHS: Acute Toxicity – Oral:** Category 4 – Harmful if swallowed.

**GHS: Acute Toxicity – Dermal:** Not acutely toxic by dermal exposure

**GHS: Acute Toxicity – Inhalation:** Category 2 – Fatal if inhaled.

**GHS Contact Hazard – Skin:** Category 1C – Causes severe skin burns and eye damage.

**GHS Contact Hazard – Eye:** Category 1 – Causes serious eye damage.

**GHS: Carcinogenicity:** This product is not classified as a carcinogen by NTP, IARC or OSHA

**SPECIFIC TARGET ORGAN TOXICITY (Single Exposure):** Category 3 – Respiratory Tract Irritation

**MUTAGENIC DATA:** Not classified as a mutagen per GHS criteria. Not mutagenic in 5 Salmonella strains and 1E coli strain with or without mammalian microsomal activation.

**REPRODUCTIVE DATA:** Not classified as a reproductive toxin per GHS criteria. There are no known or recorded effects on reproductive function or fetal development.

**OTHER HAZARDS:** Contact with acids liberates toxic gas.

**12. ECOLOGICAL INFORMATION**

**ECOTOXICITY DATA:**

**Fish Toxicity:**

LC50 Bluegill Sunfish: 0.25-1.0 mg/l (96 hr)

LC50 Rainbow trout: 0.13-0.36 mg/l (96 hr.)

LC50 Inland silversides: 1.21 mg/L (96 hr)

**Invertebrate Toxicity:**

LC50 Water flea: 0.196 mg/L (48 hour)



<p>LC50 Mysid shrimp: 1.65 mg/L (96 hour)</p> <p><b>Other Toxicity:</b></p> <p>LD50 Mallard Duck (oral): 1.916 mg/kg</p> <p>LD50 N. Bobwhite Quail (oral): 1.732 mg/kg</p> <p>LD50 Mallard Duck (diet) &gt; 10,000 ppm</p> <p>LD50 N. Bobwhite Quail (diet): &gt;10000 ppm</p> <p><b>FATE AND TRANSPORT:</b></p> <p><b>BIODEGRADATION:</b> This material is subject to hydrolysis. Cyanuric acid produced by hydrolysis. Cyanuric acid produced by hydrolysis is biodegradable.</p> <p><b>PERSISTENCE:</b> This material is believed not to persist in the environment. Free available chlorine is rapidly consumed by reaction with organic and inorganic materials to produce chloride ion. The stable degradation products are chloride ion and cyanuric acid.</p> <p><b>BIOCONCENTRATION:</b> This material in water liberating free available chlorine and cyanuric acid. These products are not bioaccumulative.</p> <p><b>ADDITIONAL ECOLOGICAL INFORMATION:</b> This product is very toxic to fish and aquatic organisms. This product is very toxic to aquatic life with long lasting effects. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of appropriate regulatory requirements (e.g. permit and the permitting authority has been notified in writing prior to discharge). Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your local or regional regulatory water boards and/or other appropriate regulatory offices.</p>
<b>13. DISPOSAL CONSIDERATIONS</b>
<p><b>Waste from Material: Use or reuse if possible.</b> This material is a registered pesticide. May be subject to disposal regulations. Dispose in accordance with all applicable regulations. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. DO NOT transport wet or damp material. Damp material should be neutralized to a non-oxidizing state.</p> <p><b>Container Management:</b></p> <p>See product label for container disposal information. Dispose of container in accordance with applicable local, regional, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.</p>
<b>14. TRANSPORT INFORMATION</b>
<p><b>LAND TRANSPORT</b></p> <p><b>US DOT 49CFR 172.101</b></p> <p><b>Status:</b> Non-Bulk Packaging. Not regulated unless transported by vessel. Bulk packaging or shipment by vessel: Regulated as follows:</p> <p><b>UN Number:</b> UN3077</p> <p><b>PROPER SHIPPING NAME:</b> Environmentally Hazardous Substance, Solid, n.o.s. (Sodium dichloroisocyanurate dihydrate) marine Pollutant</p> <p><b>HAZARD CLASS/DIVISION:</b> 9</p> <p><b>PACKING GROUP:</b> III</p> <p><b>LABELING REQUIREMENTS:</b> 9 Marine Pollutant</p> <p><b>MARINE POLLUTANT:</b> Sodium dichloroisocyanurate dihydrate</p>
<b>15. REGULATORY INFORMATION</b>
<b>US Regulations</b>

**OSHA REGULATORY STATUS:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

**CERCLA SECTIONS 102A/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):** Not regulated.

**SARA EHS Chemical (40 CFR 355.30):** Not regulated

**EPCRA SECTIONS 311/312 HAZRD CATEGORIES (40 CFR 370.10):** Fire Hazard, Reactive Hazard, Acute Health Hazard

**EPCRA SECTION 313 (40 CFR 372.65):** Not regulated

**OSHA PROCESS SAETY (PSM)(29 CFR 1910.119):** Not regulated

**FIFRA REGULATIONS:** Registered pesticide under 40 CFR 152.10, Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

**FIFRA LABELING REQUIREMENTS:** This chemical is a pesticide product registered by the United States Environmental Protection Agency (EPA) and is subject to certain labeling requirements under federal pesticide sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

FIFRA Signal Word – DANGER

Corrosive

Causes irreversible eye damage

May be fatal if inhaled

Harmful if swallowed or absorbed through skin

This pesticide is toxic to fish and aquatic organisms

Strong Oxidizing Agent.

Contact with water slowly liberates irritating and hazardous chlorine containing gases

Decomposes at temperatures above 464°F with liberation of harmful gases

When ignited will burn with the evolution of chlorine and equally toxic gases

NEVER add water to product

Always add product to large quantities of water

Use only clean and dry utensils

DO NOT add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion.

Contamination with moisture, organic material, or other incompatible chemicals may start a reaction with generation of heat, liberation of hazardous gases, and possible fire and explosion.

#### **NATIONAL INVENTORY STATUS**

**US INVENTORY STATUS: Toxic Substance Control Act (TSCA):** All components are listed or exempt.

#### **16. OTHER INFORMATION**

**Prepared by:** Qualco, Inc.

**Rev. Date:** May 27, 2015

**HMIS SCALE (0-4)** (Rated using National Paint & Coatings Association HMIS: Ratings Instructions 2<sup>nd</sup> Edition)

**Health Rating = 3**

**Flammability Rating = 0**

**Reactivity Rating = 1**

**NFPA 704 – Hazrd Identification Ratings (SCALE 0-4)**

**Health Rating = 2**

**Flammability = 0**

**Reactivity Rating = 1**

**Reasons for Revision:**

Changed the SDS format to meet the GHS requirements of the revised 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Updated SDS header

Added GHS Information

Updated FIFRA Regulations

Added revision date

This MSDS supersedes all previous MSDS.

**DISCLAIMER:**

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