

PRODUCT NAME: CHLORINATING GRANULES
Revision date: 6/15/2013

SECTION 1 IDENTIFICATION

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

U.S. PERS Emergency Telephone 1-800-633-8253

Distributor:
ESSENTIALS
5070 Wallace Drive
Cumming, GA 30041
(626) 305-1182

SECTION 2 HAZARDOUS COMPONENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>
Sodium dichloroisocyanurate, dihydrate	51580-86-0	99-100

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Sodium dichloroisocyanurate, dihydrate

Chemical formula: $\text{NaCl}_2 (\text{NCO})_3 \times 2\text{H}_2\text{O}$

Chemical Family: Chloroisocyanurate

Product Description: White crystalline granules having a slight chlorine odor.

Type of product and use: End-use products intended for disinfectants, sanitizers, fungicides, bactericides and algacides for pools, spas and hot tubs.

Similar names: Sodium dichlor; Sodium dichloro-s-triazetrione dihydrate

SECTION 4 FIRST-AID MEASURES

Eye contact Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before re-use. Get medical attention immediately.

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Ingestion Call poison control center, or doctor immediately for treatment advise. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Note to physician Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water

Extinguishing Media not to be used: Do not use dry chemical extinguisher containing ammonia compounds.

Fire fighting procedure: Cool containers with water spray. Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode. On small fires, use water spray or fog. On large fires, use heavy deluge or fog streams. Flooding amounts of water may be required before extinguishment can be accomplished.

Unusual fire and explosion hazards: When heated to decomposition, may release poisonous and corrosive fumes or **hazards**. Nitrogen trichloride, chlorine and CO.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions: For small spills in a well-ventilated areas, wear a NIOSH approved half-face or full face tight fitting respirator or a loose fitting powered air purifying respirator equipped with chlorine cartridges. Chemical goggles should be worn when using a half-face respirator. In addition to respiratory protection, wear coveralls, chemical resistant gloves, chemical resistant footwear; and chemical resistant headgear for overhead exposure. For clean-up of large spills, or small dry spills in confined areas, wear full-face respirator with chlorine cartridges or a positive pressure supplied air respirator. Additionally, body protection should be impervious clothing covering entire body to prevent personal contact with material. **CAUTION** - Protection concerns must also address the following: If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist.

Methods for cleaning up Hazardous concentrations in air may be found in local spill area and immediately downwind. If spill material is still dry, do not put water directly on this product as a gas evolution may occur. **Soil** - Do not contaminate spill material with any organic materials, ammonia, ammonium salts or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container. **Water** -This material is heavier than and soluble in water. Stop flow of material into water as soon as possible. Begin monitoring for available chlorine and pH immediately. **In air** - Vapors may be suppressed by the use of water fog.

SECTION 7 HANDLING AND STORAGE

Handling Do not take internally.
 Avoid contact with skin, eyes, and clothing.
 Upon contact with skin or eyes, wash off with water.

Storage Store in a dry, cool, well-ventilated area away from incompatible materials (see "materials to avoid").
 Do not store at temperatures above 60°C/140°F.
 Product has an indefinite shelf-life.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

COMPONENTS	ACGIH-TLV Data	OSHA (PEL) Data
SODIUM DICHLOROISOCYANURATE DIHYDRATE	Not Determined	Not Determined

Ventilation requirements : Use local exhaust ventilation to minimize dust and chlorine levels where industrial use occurs. Otherwise ensure good general ventilation.

Personal protective equipment:

Respiratory protection A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

 When dusty conditions are encountered, wear a NIOSH/OSHA full-face respirator with chlorine cartridges for protection against chlorine gas and dust/mist pre-filter.

Hand protection Neoprene gloves

Eye protection Use chemical safety glasses to avoid eye contact.
 Where industrial use occurs, chemical goggles may be required.

Skin and body protection Impervious body covering clothes, boots and neoprene apron.

Hygiene measures : Safety shower and eye bath should be provided. Do not eat, drink or smoke
 Until after-work showering and changing clothes.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White granules
Odor	Mild chlorine-like
Boiling point/range	Not Applicable
Melting point/range	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not self-ignitable
Vapour pressure	Not applicable under standard Conditions
Evaporation rate (ether=1)	Not applicable under standard conditions

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES continued:

Vapor density	Not applicable under standard
Viscosity	Not applicable
Specific Gravity	0.96
pH Factor:	5-7
Solubility:	24-25g/100g
Density	Tap density = 0.974 g/mL Pour density = 1.083 g/mL kg/L
Decomposition temperature	Begins to lose 1 mole water at approx. 50°C; second mole water at 95°C: Decomposes at 240-250°C.

SECTION 10 STABILITY AND REACTIVITY

Stability	Stable under normal conditions. Do not package in paper or cardboard. Begins to lose one mole of water at approximately 50°C	
Materials to avoid	Organic materials, reducing agents, nitrogen containing materials, other oxidizers, acids, bases, oils, grease, sawdust, dry fire extinguishers containing monoammonium compounds.	
Conditions to avoid	Heating above decomposition temperature.	
Hazardous decomposition	Nitrogen trichloride, chlorine, carbon monoxide products.	
Hazardous polymerization	Will not occur	
Summary of Reactivity:	Oxidizer: yes Pyroforic: No	Organic Peroxide: No Water Reactive: No

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:	
- Rat oral LD50	1671 mg/kg
- Rat dermal LD50	>5000 mg/kg
- Eye irritation (rabbit)	Severe irritant
- Dermal irritation (rabbit)	Severe irritant
Dermal sensitization	Not a sensitizer
Immediately Dangerous to Life or Health (IDLH)	No level has been established for the components or the product itself.
Chronic toxicity	Chronic inhalation exposure may cause impairment of lung function
and	Permanent lung damage.
Mutagenicity	Not mutagenic in five Salmonella strains with or without metabolic activation.
Carcinogenicity	Not classified by IARC, OSHA, EPA. Not included in NTP 11th Report on Carcinogens
Reproductive toxicity	Sodium dichloroisocyanuric acid when given orally to pregnant mice from day 6 to Day 15 of gestation, did not induce any significant teratogenic effects.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity

- **96 Hour-LC50, Fish** 0.22 mg/l (rainbow trout)
0.28 mg/l (bluegill sunfish)
- **48 Hour-LC50, Daphnia magna** 0.2 mg/l

Avian toxicity:

- **Oral LD50, Bobwhite quail** 730 mg/kg
- **Oral LD50, Mallard duck** 3300 mg/kg
- **Dietary LC50, Mallard duck** >10,000 ppm
- **Dietary LC50, Bobwhite quail** >10,000 ppm

SECTION 13 DISPOSAL CONSIDERATIONS

Waste disposal

Care must be taken to prevent environmental contamination from the use of this material.
Observe all federal, state and local environmental regulations when disposing of this material.

SECTION 14 TRANSPORTATION INFORMATION

DOT: NOT REGULATED FOR ROAD TRANSPORTATION

For Vessel only:

UN No. 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Sodium Dichloroisocyanurate, Dihydrate)

Class: 9 - Miscellaneous Hazardous Material

Label: 9

Marking: Marine Pollutant

Packing Group: III

IMO UN No. 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Sodium Dichloroisocyanurate, dihydrate)

Class: 9 - Miscellaneous Dangerous Substances and Articles

Label: 9

Mark: MARINE POLLUTANT

Packing Group: III

ICAO/IATA UN No. 3077
 Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Sodium Dichloroisocyanurate, dihydrate)
 Class: 9
 Hazard label(s): Miscellaneous
 Packing group: III
 Marking: Environmentally hazardous substance

SECTION 15 REGULATORY INFORMATION

USA All the components of this substance are listed on or are exempt from the inventory.

- **SARA (311, 312)** This product is categorized as an immediate health hazard, and fire and reactivity physical hazard

- **Massachusetts Right-to-Know Hazardous Substances** - Listed
 - **Pennsylvania Right-to-Know Hazardous Substances** -Listed

- **Waste Classifications** If this product becomes a waste, it does not meet the criteria of a hazardous Waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

Workplace Classification This product is considered hazardous under the OSHA Hazard

SECTION 16 OTHER INFORMATION

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which the information refers.

END OF SAFETY DATA SHEET
 Revision 06/15/2013