



Product Name: Sodium Dichlor
Date: 7/10/2015

SECTION 1 IDENTIFICATION

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

Distributor:

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

Product Name: **Sodium Dichlor**

Synonyms: Sodium dichloroisocyanurate dihydrate; Dichlor dihydrate; 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt dihydrate; Troclosene sodium, dihydrate; SDCC dihydrate; NaDCC dihydrate

Chemical Name: Sodium Dichloro-S-Triazinetrione Dihydrate

Chemical Formula: $C_3N_3O_3Cl_2Na \cdot 2H_2O$

CAS Number: 51580-86-0

Product Use: Disinfects spas and pools.

SECTION 2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER - CORROSIVE



Hazard Statement(s)

- H302: Harmful if swallowed
- H312: Harmful in contact with skin
- H318: Causes serious eye damage
- H330: Fatal if inhaled
- H335: May cause respiratory irritation
- H400: Very toxic to aquatic life

Precautionary Statement(s)

- P221: Take any precaution to avoid mixing with other chemicals
- P260: Do not breathe dust, vapours or spray mist.
- P262: Do not get in eyes, on skin, or on clothing.
- P264: Wash thoroughly with soap and water after handling.
- P280: Wear protective gloves, protective clothing, eye protection and face protection.
- P273: Avoid release to the environment
- P321: Specific treatment (see First Aid Measures on this label).
- P362+364: Take off contaminated clothing and wash it before reuse.
- P501: Dispose of contents/container in accordance with national and international regulations

POTENTIAL HEALTH EFFECTS

Eye: This material is corrosive to the eye. Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. The degree of injury depends on the concentration and duration of contact.



Skin: This material is moderately irritating to the skin. Direct contact with wet material or moist skin may cause severe irritation, pain, and possibly burns. Dry material is less irritating than wet material. This material is not a skin sensitizer based on studies with guinea pigs.

SECTION 2 HAZARDS IDENTIFICATION - CONTINUED

Inhalation: This material in the form as sold is not expected to produce respiratory effects. Particles of respirable sizes 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. May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. If significant or prolonged exposure occurs, pulmonary edema may develop, either immediately or more often within a period of 5-72 hours. The symptom may include tightness in the chest dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include moist rales, low blood pressure and high pulse pressure. Severe cases may be fatal.

Ingestion: Not a likely route of exposure. Harmful if swallowed. Ingestion may cause immediate pain and severe burns of the mucous membranes. There may be discoloration of the tissues. Swallowing and speech may be difficult at first and then almost impossible. The effects on the esophagus and gastrointestinal tract may range from irritation to severe corrosion. Edema of the epiglottis and shock may occur.

Chronic Exposure/Carcinogenicity: Based on animal studies, exposure to concentrations of monosodium cyanurate at the solubility limit may cause cardiovascular, kidney and urinary bladder effects.

Aggravation of Pre-Existing Conditions: Eye disorders, respiratory disorders, skin disorders and allergies

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percent
Sodium Dichloro-S-Triazinetrione Dihydrate	51580-86-0	99%

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 advice. 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.

SECTION 5 FIRE FIGHTING MEASURES

Note To Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

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 of 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.

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: Chemical resistant gloves



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Sodium Dichlor - 0030

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
Vapor Density:	Not applicable under standard
Viscosity:	Not applicable
Specific Gravity:	2.0
pH Factor:	5-7
Solubility:	26.25g/100g (26°C)
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 Products: Nitrogen trichloride, chlorine, carbon monoxide

Hazardous Polymerization: Will not occur.

Summary of Reactivity: Organic Peroxide: No
Pyroforic: No
Water Reactive: No

SECTION 11 **TOXICOLOGICAL INFORMATION**

Acute Toxicity:	
Rat oral LD50	1823 mg/kg
Rat dermal LD50	>2000 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.



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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**

Inner packagings not over 5.0 kg (11 lbs) net capacity each for solids, packed in a strong outer packaging:

- DOT: UN Number:** ORM-D
- UN Proper Shipping Name:** ORM-D
- Transport Hazard Class:** ORM-D
- Packing Group:** ORM-D

Consumer commodity (ORM-D) means a material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. Valid until December 31, 2020.

Inner packagings over 5.0 kg (11 lbs) net capacity each for solids, packed in a strong outer packaging:

- DOT: UN Number:** 3077
- UN Proper Shipping Name:** Environmentally hazardous substances, solid, n.o.s. (Sodium dichloro-s-triazinetriene dihydrate)
- Transport Hazard Class:** 9
- Packing Group:** III

- IMDG: UN Number:** 3077
- UN Proper Shipping Name:** Environmentally hazardous substances, solid, n.o.s. (Sodium dichloro-s-triazinetriene dihydrate)
- Transport Hazard Class:** 9
- Packing Group:** III



SAFETY DATA SHEET
Sodium Dichlor - 0030

EmS Number 1: F-A
EmS Number 2: S-F

IATA: UN Number: 3077
UN Proper Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Sodium dichloro-s-triazinetriene dihydrate)
Transport Hazard Class: 9
Packing Group: III

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 information refers.

Date: 7/10/2015
Phoenix Products Company