

## **I - PRODUCT IDENTIFICATION**

Product: Sodium Dichlor 56%  
Chemical Family: Chloroisocyanurate  
Formula:  $(\text{NaCl}_2(\text{NCO})_3 \cdot 2\text{H}_2\text{O})$   
CAS Number: 51580-86-0  
Synonym(s): Sodium Dichlor, Sodium Dichloroisocyanurate dihydrate, Sodium dichloro-s-triazinetriene dihydrate; Troclosene sodium, dehydrate

## **COMPANY IDENTIFICATION**

AllChem Performance Products  
6010 NW First Place  
Gainesville, FL 32607  
Tel: 352-378-9696

## **II – COMPOSITION, INFORMATION ON INGREDIENTS**

Chemical or Common Name:	Exposure Limits	
	OSHA PEL:	ACGIH TLV:
Sodium dichloroisocyanurate, dihydrate		
99-100% [51580-86-0]	Not established	Not established
Sodium chloride		
0-1% [7647-14-5]		

## **III – HAZARDS IDENTIFICATION**

Emergency Overview: Harmful if swallowed. Irritant to eyes and respiratory system.

Primary Route(s) of Entry:

Ingestion:   
Inhalation:   
Skin Contact:   
Eye Contact:

Primary Health Hazards (Acute and Chronic): Carcinogenicity Listings:

OSHA:   
NTP:   
IARC:

Signs & Symptoms of Exposure:

Ingestion: Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding and/or tissue ulceration. Ingestion causes severe damage to the gastrointestinal tract with the potential to cause perforation.

Inhalation: Irritating to the nose, mouth, throat, and lungs. It may also cause burns to the respiratory tract with the production of lung edema that can result in

shortness of breath, wheezing, choking, chest pain, and impairment of lung function. Inhalation of high concentrations can result in permanent lung damage from the corrosive action of the lung.

Skin Contact: Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling, and scab formation. Prolonged skin exposure may cause permanent damage.

Eye Contact: Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage.

Medical Conditions Aggravated by Exposure: Asthma, respiratory and cardiovascular disease.

#### **IV – FIRST AID MEASURES**

Emergency and First Aid Procedures:

Ingestion: If swallowed, wash mouth thoroughly with plenty of water, give water to drink. Get medical attention immediately.

Inhalation: In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air. Keep person quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before reuse. Get medical attention immediately.

Eye Contact: Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.

Note to Physician: Corrosive. No specific antidote. Treat symptomatically and supportively. In case of ingestion, do not induce vomiting.

#### **V – FIRE FIGHTING MEASURES**

##### **FIRE AND EXPLOSION HAZARD DATA**

Flash Point: Not applicable

Flammable Limits:

LEL:

UEL:

Auto-ignition Temperature: Not applicable

Extinguishing Media: Water. Do not use dry chemical extinguisher containing ammonia compounds.

Special Fire-fighting Procedures: Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode. Cool containers with water spray. On small fires, use water spray or fog. On large fires, use heavy deluge of 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 carbon monoxide.

## **VI – ACCIDENTAL RELEASE MEASURES**

Steps to Be Taken In Case Material Is Spilled or Released:

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.

On 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.

On 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.

## **VII – HANDLING AND STORAGE**

Precautions to Be Taken in Handling and Storage:

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

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

## **VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

Ventilation:

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

Mechanical Exhaust:

Other Protective Clothing or Equipment: Neoprene gloves, Use chemical safety glasses to avoid eye contact. Where industrial use occurs, chemical goggles may be required. Use impervious body covering clothes, boots, and neoprene apron.

Work/ Hygienic Practices: Safety showers and eye bath should be provided. Do not eat, drink, or smoke until after-work showering and changing clothes.

## **IX - PHYSICAL/CHEMICAL CHARACTERISTICS**

Boiling Point: Not applicable

Vapor Pressure (mm Hg): Not applicable under standard conditions

Vapor Density (Air=1): Not applicable under standard conditions

Solubility in Water: 25 g/100ml @ 30°C  
Appearance and odor: White granular solid or tablet-form product with a mild chlorine-like odor  
Specific Gravity (H<sub>2</sub>O=1): 0.96  
Percent volatile by volume:  
Melting Point: Not applicable  
Evaporation Rate: Not applicable under standard conditions  
Molecular weight: 256  
Bulk Density: 0.9-0.95 g/cc  
pH: 6-6.5 (1% solution)  
Thermal decomposition: Begins to lose 1 mole water at approximately 50°C; second mole water at 95°C; decomposes at 240-250°C

## **X – STABILITY AND REACTIVITY**

Stability:        () Unstable                    () Stable under normal conditions  
Conditions to Avoid: Do not package in paper or cardboard. Begins to lose one mole of water at approximately 50°C. Heating above 240°C (464°F)  
Incompatibility: Organic materials, reducing agents, nitrogen containing materials, other oxidizers, acids, bases, oils, grease, sawdust, dry fire extinguishers containing monoammonium compounds.  
Hazardous Decomposition or By-Products: Nitrogen trichloride, chlorine, carbon monoxide  
Hazardous Polymerization:                    () May Occur                    () Will Not Occur  
Conditions to Avoid:  
Summary of Reactivity:  
Oxidizer: Yes  
Organic Peroxide: No  
Pyroforic: No  
Water Reactive: No

## **XI - TOXICOLOGICAL INFORMATION**

Acute Toxicity:  
Rat oral LD50: 735mg/kg  
Rabbit dermal LD50: >2000 mg/kg  
Rat inhalation LC50: >50mg/m<sup>3</sup>/1 hour  
Eye irritation (rabbit): Corrosive  
Dermal Irritation (rabbit): Corrosive  
Dermal Sensitization (guinea pig): Not a sensitizer  
Chronic Toxicity: Chronic inhalation exposure may cause impairment of lung function and permanent lung damage.  
Immediately Dangerous to Life or Health (IDLH): No level has been established for the components or the product itself.  
Target Organ Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract. There

are no known or reported effects from repeated exposure. Toxicological investigation indicates it does not produce significant effects from chronic exposure.

Reproductive and Development 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.

Carcinogenicity: Not known to be a carcinogen. Not included in NTP 8<sup>th</sup> Report on Carcinogens. Not classified by IARC, OSHA, or EPA.

Mutagenicity: Not mutagenic in five Salmonella strains with or without metabolic activation.

## **XII – 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: 0.2mg/l

Avian Toxicity:

Bobwhite quail, acute oral LD50: 730 mg/kg

Mallard duck, acute oral LD50: 3300 mg/kg

Mallard duck, dietary LC50: >10,000 ppm

Bobwhite quail, dietary LC50: >10,000 ppm

## **ENVIRONMENTAL HAZARDS (PR Notice 93-10)**

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water board or Regional Office of the EPA.

## **XIII – DISPOSAL CONSIDERATIONS**

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

Other Precautions: Personal precautions: for small spills in 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.

#### **XIV - TRANSPORTATION DATA**

##### U.S. Department of Transportation - 49 CFR

Not regulated

Proper Shipping Name:

Hazard Class/Division Number:

ID Number: Not regulated

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 800-424-9300

##### International Maritime Organization - IMDG

Not regulated

Proper Shipping Name:

Hazard Class/Division Number:

ID Number:

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 202-483-7616 [call collect]

#### **XV - REGULATORY INFORMATION**

SARA Title III:

Section 311/312 Categorization (40CFR 370.2): This product is categorized as an immediate health hazard, and fire and reactivity physical hazard.

TSCA: USA: Reported in the EPA TSCA Inventory.

Workplace Classification: This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

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 hazardous waste under Subpart D.

EEC: Reported in EINECS (No. 220-767-7, 231-598-3)

Massachusetts right-to-know substance list: Listed

Pennsylvania right to know list: Listed

Adverse human Health Effects: Harmful is swallowed

HMIS Rating: Health: 3 Fire: 0 Reactivity: 1

NFPA Rating: Health: 2 Fire: 0 Reactivity: 1

Special Hazard Warning: Oxidizer

## **XVI - ADDITIONAL INFORMATION**

**ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.**

Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed in Section XV of this document should NOT be considered all-inclusive or authoritative. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

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