

## Material Safety Data Sheet

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Version 1.1  
According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

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#### 1 - Product and Company Information

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Product Name DICHLOROISOCYANURIC ACID, SODIUM SALT,  
9 6%  
Product Number 218928  
  
Company Sigma-Aldrich Pty, Ltd  
Unit 2, 14 Anella Avenue  
Castle Hill NSW 1765  
Technical Phone # +61 2 9841 0555  
Fax +61 2 9841 0500  
Emergency Phone # +61 2 9841 0566

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#### 2 - Composition/Information on Ingredients

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Product Name	CAS #	EC no	Annex I Index Number
DICHLOROISOCYANURIC ACID SODIUM	2893-78-9	220-767-7	613-030-00-X
Formula C3Cl2N3NaO3			
Molecular Weight 219.95 AMU			
Synonyms ACL 60 * CDB 63 * CP 17254 * Dichloroisocyanuric acid sodium salt * Dichlorosymtriazine-2,4,6(1H,3H,5H)trione sodium derivative * Dikonit * Dimanin C * Fi Clor 60S * Isocyanuric acid, dichloro-, sodium salt * OCI 56 * SDIC * Simpla * Sodium dichlorocyanurate * Sodium dichloroisocyanurate * Sodium dichloroisocyanurate * 1-Sodium-3,5-dichloro-s-triazine-2,4,6-trione * 1-Sodium-3,5-dichloro-1,3,5-triazine-2,4,6-trione * * Sodium salt of dichloro-s-triazinetrione * 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt			

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#### 3 - Hazards Identification

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##### SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Contact with combustible material may cause fire. Harmful if swallowed. Contact with acids liberates toxic gas. Irritating to eyes and respiratory system. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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#### 4 - First Aid Measures

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##### AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

## AFTER EYE CONTACT

Assure adequate flushing of the eyes by separating the eyelids with fingers.

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## 5 - Fire Fighting Measures

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### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions. Contact with other material may cause fire.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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## 6 - Accidental Release Measures

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### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust.

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## 7 - Handling and Storage

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### HANDLING

Directions for Safe Handling: Avoid inhalation. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

### STORAGE

Conditions of Storage: Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame. Store in a cool dry place.

### SPECIAL REQUIREMENTS: Moisture sensitive.

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## 8 - Exposure Controls / Personal Protection

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### ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

### PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

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## 9 - Physical and Chemical Properties

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### Appearance

Physical State: Solid  
Color: White  
Form: Powder

Property	Value	At Temperature or Pressure
pH	6.2 - 6.8	
BP/BP Range	N/A	
MP/MP Range	N/A	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	240 °C	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water:soluble	

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## 10 - Stability and Reactivity

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### STABILITY

Conditions of Instability: Moisture sensitive.

Materials to Avoid: Strong bases, Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

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## 11 - Toxicological Information

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RTECS NUMBER: XZ1900000

### ACUTE TOXICITY

LD<sub>50</sub>

Oral

Human

3570 mg/kg

Remarks: Gastrointestinal:Ulceration or bleeding from stomach.

LD<sub>50</sub>

Oral

Rat

1420 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity).  
Lungs, Thorax, or Respiration:Acute pulmonary edema. Liver:Other changes.

LD<sub>50</sub>

Oral

Mammal

1670 mg/kg

## IRRITATION DATA

Skin  
Rabbit  
500 mg  
24H  
Remarks: Mild irritation effect

Skin  
Rabbit  
500 mg  
Remarks: Severe irritation effect

Eyes  
Rabbit  
10 mg  
24H  
Remarks: Rinsed

Eyes  
Rabbit  
100 mg  
24H  
Remarks: Mild irritation effect

## SIGNS AND SYMPTOMS OF EXPOSURE

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## ROUTE OF EXPOSURE

Skin Absorption: May be harmful if absorbed through the skin.  
Inhalation: May be harmful if inhaled.  
Ingestion: Harmful if swallowed.

## CONDITIONS AGGRAVATED BY EXPOSURE

Causes sneezing. Do not inhale.

## CHRONIC EXPOSURE - TERATOGEN

Species: Mouse  
Dose: 4 GM/KG  
Route of Application: Oral  
Exposure Time: (6-15D PREG)  
Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Physical.

Species: Mouse  
Dose: 4 GM/KG  
Route of Application: Oral  
Exposure Time: (6-15D PREG)  
Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical.

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## 12 - Ecological Information

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No data available.

#### ECOTOXICOLOGICAL EFFECTS

Test Type: EC50 Daphnia  
Species: Daphnia magna  
Time: 48 h  
Value: 0.15 mg/l

Test Type: LC50 Fish  
Species: Lepomis macrochirus (Bluegill)  
Time: 96 h

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#### 13 - Disposal Considerations

##### SUBSTANCE DISPOSAL

Observe all federal, state, and local environmental regulations.

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#### 14 - Transport Information

##### RID/ADR

UN#: 2465  
Class: 5.1  
PG: II  
Proper Shipping Name: Dichloroisocyanuric acid salts

##### IMDG

UN#: 2465  
Class: 5.1  
PG: II  
Proper Shipping Name: Dichloroisocyanuric acid salts  
Marine Pollutant: No  
Severe Marine Pollutant: No

##### IATA

UN#: 2465  
Class: 5.1  
PG: II  
Proper Shipping Name: DICHLOROISOCYANURIC ACID, SALTS  
Inhalation Packing Group I: No

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#### 15 - Regulatory Information

##### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 613-030-00-X

INDICATION OF DANGER: O Xn N

Oxidizing. Harmful. Dangerous for the environment.

R-PHRASES: 8 22 31 36/37 50/53

Contact with combustible material may cause fire. Harmful if swallowed. Contact with acids liberates toxic gas. Irritating to eyes and respiratory system. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES: 8 26 41 60 61

Keep container dry. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of fire and/or explosion do not breathe fumes. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

#### SWITZERLAND

16 - Other Information

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**WARRANTY**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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