

**Safety Data Sheet**  
**According to Regulation (EC) No 1907/2006, Annex II,**  
**Amended by COMMISSION REGULATION (EU) 2020/878,**  
**According to REGULATION (EC) No 1272/2008**

Sodium dichloroisocyanurate

Version 1.0

Issue date: 24-02-2022

Revision date: 24-02-2022

CIRS SDS Record Number: CSSS-TCO-010-150444

**Section 1 Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier:**

Identification on the label/Trade name: Sodium dichloroisocyanurate  
Additional identification: Nanoform is NOT covered by this SDS.  
Identification of the product: CAS#2893-78-9 EC#220-767-7  
Index Number: 613-030-00-X  
REACH registration No.: Not available

**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

**1.2.1 Identified uses:**

Water treatment.  
PC 1: Adhesives, sealants  
PC 9a: Coatings and paints, thinners, paint removes  
PC 9b: Fillers, putties, plasters, modelling clay  
PC 15: Non-metal-surface treatment products  
PC 19: Intermediate  
PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents  
PC 21: Laboratory chemicals  
PC 23: Leather treatment products  
PC 34: Textile dyes, and impregnating products  
PC 35: Washing and cleaning products  
PC 37: Water treatment chemicals  
PC 39: Cosmetics, personal care products  
SU 0: Other: SU 21: Consumer uses: Private households (= general public = consumers) SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
SU 5: Manufacture of textiles, leather, fur  
SU 9: Manufacture of fine chemicals  
SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  
SU 20: Health services  
SU 24: Scientific research and development

**1.2.2 Uses advised against:**

No uses advised against are identified.

**1.3 Details of the supplier of the safety data sheet:**

Supplier(Only representative): Chemical Inspection & Regulation Service Limited  
Supplier(Manufacturer): HEBEI XINGFEI CHEMICAL CO., LTD  
Address: THE SECOND INDUSTRIAL PARK OF DACAOZHUANG MANAGEMENT AREA,XINGTAI CITY HEBEI PROVINCE P.R.CHINA  
Contact person(E-mail): yingyingbinhai@hotmail.com

Telephone: +86-15053203217

Fax: +86-319-5569108

#### 1.4 Emergency telephone Number:

+86-15053203217 Only available during office hours (9:00a.m.-17:30p.m.)

Available outside office hours?

YES

NO

## Section 2 Hazards Identification

### 2.1 Classification of the substance or mixture:

#### 2.1.1 Classification of the substance:

The substance is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Ox. Sol. 2	H272
Acute Tox. 4	H302
Eye Irrit. 2	H319
STOT SE 3	H335
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

For full text of H- phrases: see section 2.2.

### 2.2 Label elements:

#### Hazard pictogram(s):



#### Signal word:

Danger

#### Hazard statement(s):

H272: May intensify fire; oxidiser.

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H410: Very toxic to aquatic life with long lasting effects.

#### Precautionary statement(s):

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220: Keep away from clothing and other combustible materials.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P304 + P340: IF INHALED: remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTER/doctor if you feel unwell.

P330: Rinse mouth.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P370 + P378: In case of fire: Use powder, carbon dioxide, foam to extinguish.

P391: Collect spillage.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local regulations.

EUH031: Contact with acids liberates toxic gas.

### Supplemental Hazard information (EU)

### 2.3 Other hazards:

The substance is not PBT / vPvB.

The substance is not identified as having endocrine disrupting properties.

## Section 3 Composition/information on ingredients

Substance/Mixture: Substance

### Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)
Sodium dichloroisocyanurate	N/A	2893-78-9	220-767-7	≥90%	N/A
Water	N/A	7732-18-5	231-791-2	≤10%	N/A
Cyanuric acid	N/A	108-80-5	203-618-0	≤0.05%	N/A
Sodium chloride	N/A	7647-14-5	231-598-3	≤0.05%	N/A

## Section 4 First aid measures

### 4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

#### 4.1.1 In case of inhalation:

If adverse effects occur remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support.

#### 4.1.2 In case of skin contact:

Immediately flush contaminated areas with water. Remove contaminated clothing. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing and shoes before reuse. If irritation occurs, get medical help.

#### 4.1.3 In case of eyes contact:

Immediately flush eye with a directed stream of water for at least 15 minutes.

#### 4.1.4 In case of ingestion:

If victim is conscious and alert, allow to rinse mouth and then drink two cups of water. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs spontaneously, keep airway clear. Drink more water when vomiting stops. Seek medical attention immediately.

### 4.2 Most important symptoms and effects, both acute and delayed:

Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

## Section 5 Firefighting measures

### 5.1 Extinguishing media:

Suitable extinguishing media: Powder, carbon dioxide, foam.

**Unsuitable extinguishing media:**

Do not use ABC extinguishers containing nitrogen, due to risk of violent chemical reaction.

**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced: nitrogen oxides (NOx), hydrogen chloride (HCl), chlorine.

**5.3 Advice for firefighters:**

Self-contained breathing apparatus with full-face mask and full protective clothing (standard wear).

**Section 6 Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

**6.1.1 For non-emergency personnel:**

Avoid contact with skin and eyes. Avoid formation of dust. Provide appropriate exhaust ventilation at places where dust is formed. Keep unnecessary people away, isolate hazard area and deny entry.

**6.1.2 For emergency responders:**

Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

**6.2 Environmental Precautions:**

Do not allow material to be released to the environment without proper governmental permits. Very toxic to aquatic life with long lasting effects.

**6.3 Methods and material for Containment and Cleaning up:**

DO NOT add water to spilled materials. 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 any contaminated drums. DO NOT transport wet or damp material.

**6.4 Reference to other sections:**

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

**Section 7 Handling and storage**

**7.1 Precautions for safe handling:**

**7.1.1 Protective measures:**

Do not get in eyes, on skin or on clothing. Avoid breathing vapours when opening container. Avoid creation of dust. Wash thoroughly after handling. Never add water to the 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.

**7.1.2 Advice on general occupational hygiene:**

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

**7.2 Conditions for safe storage, including any incompatibilities:**

Store and handle in accordance with current regulations and standards. Do not allow water to get in container. Keep container tightly closed and properly labelled. Store containers on pallets. Keep away from food, drink and animal feed. Keep separated from incompatible substances.

**7.3 Specific end use(s):**

Not applicable.

**Section 8 Exposure Controls/Personal Protection**

**8.1 Control parameters:**

**8.1.1 Occupational exposure limits:**

cyanuric acid (CAS#108-80-5): The concentration threshold: Long-term exposure limit (TWA): 0.5 mg/m3(Lithuania)

Sodium chloride (CAS#7647-14-5): The concentration threshold: Long-term exposure limit: 5 mg/m3 (Lithuania)

**8.1.2 Additional exposure limits under the conditions of use:**

Not available.

**8.1.3 DNEL/DMEL and PNEC-Values:**

Workers - Hazard via inhalation route	Systemic effects-Long term exposure	DNEL=8.11 mg/m <sup>3</sup>
Workers - Hazard via dermal route	Systemic effects-Long term exposure	DNEL=2.3 mg/kg bw/day

General Population - Hazard via inhalation route	Systemic effects-Long term exposure	DNEL=1.99 mg/m <sup>3</sup>
General Population - Hazard via dermal route	Systemic effects-Long term exposure	DNEL=1.15 mg/kg bw/day
General Population - Hazard via oral route	Systemic effects-Long term exposure	DNEL=1.15 mg/kg bw/day
Hazard for aquatic organisms	Freshwater	PNEC=0 mg/L
Hazard for aquatic organisms	Marine water	PNEC=1.52 mg/L
Hazard for aquatic organisms	STP	PNEC=0.59 mg/L
Hazard for aquatic organisms	Sediment (freshwater)	PNEC= 7.56 mg/kg sediment dw
Hazard for terrestrial organisms	Soil	PNEC= 0.756 mg/kg soil dw

## 8.2 Exposure controls:

**8.2.1 Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**8.2.2 Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** Tightly sealed goggles.

**Skin protection**

**Hand protection:** Type of gloves recommended  Nitrile rubber.

Minimum breakthrough time / gloves: 480 min.

Minimum thickness / gloves: 0.11 mm.

**Body protection:** Plastic apron, sleeves, boots-if handling large quantities.

**Respiratory protection:** Use respiratory protection for chlorine and dust inhalation protection.

**Thermal hazards:** Wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:** Avoid discharge into the environment. According to local regulations, Federal and official regulations.

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties:

<b>Appearance:</b>	Granular/Powder
<b>Colour:</b>	White
<b>Odour:</b>	Slight chlorine odor
<b>Odour threshold:</b>	Not available
<b>pH:</b>	5.5-7.0
<b>Melting point/range (°C):</b>	Not available
<b>Boiling point/range (°C):</b>	Not available
<b>Flash point (°C):</b>	Not available
<b>Evaporation rate:</b>	Not available
<b>Flammability limit - lower (%):</b>	Not available
<b>Flammability (solid, gas):</b>	Non-flammable
<b>Ignition temperature (°C):</b>	Not available
<b>Upper/lower explosive limits:</b>	Not available
<b>Vapour pressure (20°C):</b>	< 0.006 Pa
<b>Vapour density:</b>	Not available
<b>Relative Density:</b>	0.50-0.95
<b>Bulk density (kg/m<sup>3</sup>):</b>	Not available
<b>Water solubility (g/l):</b>	250 g/L(25 °C)
<b>n-Octanol/Water (log Po/w):</b>	log Pow=-0.056
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	230 °C
<b>Viscosity, dynamic (mPa.s):</b>	Not available

<b>Explosive properties:</b>	Explosive
<b>Oxidising properties:</b>	Oxidising
<b>Molecular Formula:</b>	C3Cl2N3NaO3
<b>Molecular Weight:</b>	219.95
<b>9.2. Other information:</b>	
<b>Fat solubility(solvent-oil to be specified)</b>	Not available
<b>etc:</b>	
<b>Surface tension:</b>	Not available
<b>Dissociation constant in water(pKa):</b>	K2 = 0.00019
<b>Oxidation-reduction Potential:</b>	Not available
<b>VOC:</b>	0.001%

## Section 10 Stability and reactivity

<b>10.1 Reactivity:</b>	The substance is stable under normal storage and handling conditions.
<b>10.2 Chemical stability:</b>	Stable at room temperature in closed containers under normal storage and handling conditions.
<b>10.3 Possibility of hazardous reactions:</b>	Gives off hydrogen by reaction with metals. Contact with acids liberates toxic gas.
<b>10.4 Conditions to avoid:</b>	Incompatible materials. High temperature. Poor ventilation. Moisture/high humidity.
<b>10.5 Incompatible materials:</b>	Acids, water.
<b>10.6 Hazardous decomposition products:</b>	Nitrogen oxides (NOx), hydrogen chloride (HCl), chlorine.

## Section 11 Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

<b>Acute toxicity:</b>	
<b>LD50(Oral, Rat):</b>	1 823 mg/kg bw
<b>LD50(Dermal, Rat):</b>	> 5 000 mg/kg bw
<b>LC50(Inhalation, Rat):</b>	Not available
<b>Skin corrosion/Irritation:</b>	Not classified
<b>Serious eye damage/irritation:</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization:</b>	Not classified
<b>Germ cell mutagenicity:</b>	Not classified
<b>Carcinogenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified
<b>STOT- single exposure:</b>	May cause respiratory irritation.
<b>STOT-repeated exposure:</b>	Not classified
<b>Aspiration hazard:</b>	Not classified

### 11.2 Information on other hazards

<b>Endocrine disrupting properties</b>	The substance is not identified as having endocrine disrupting properties.
<b>Other information</b>	Not applicable

## Section 12 Ecological information

### 12.1 Toxicity:

<b>Acute (short-term) toxicity:</b>	
<b>LC50(96h, Fish):</b>	Not available

LC50(48h, Crustacea):	0.196 mg/L
EC50(72h, Algae/aquatic plants):	Not available
Chronic (long-term) toxicity:	
NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
NOEC (Algae/aquatic plants):	Not available
12.2 Persistence and degradability:	Under test conditions no biodegradation observed
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Koc ca. 51
12.5 Results of PBT and vPvB assessment:	The substance is not PBT / vPvB.
12.6 Endocrine disrupting properties:	The substance is not identified as having endocrine disrupting properties.
12.7 Other adverse effects:	Not available.
12.8 Additional information	Not available.

### Section 13 Disposal considerations

13.1 Waste treatment methods:	Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.
-------------------------------	--

### Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
14.1 UN number or ID number	UN2465	UN2465	UN2465	UN2465
14.2 UN Proper shipping name	Dichloroisocyanuric acid salts	Dichloroisocyanuric acid salts	Dichloroisocyanuric acid salts	Dichloroisocyanuric acid salts
14.3 Transport hazard Class(es)	5.1	5.1	5.1	5.1
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	Yes	Yes	Yes	Yes
14.6 Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
14.7 Maritime transport in bulk according to IMO instruments	IBC08	IBC08	IBC08	IBC08

## Section 15 Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not applicable

15.2 Chemical safety assessment YES  NO

## Section 16 Other information

### 16.1 Indication of changes:

Version 1.0 Amended by (EU) 2020/878

### 16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

### 16.3 Key literature references and sources for data

ECHA Registered substances data

### 16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008		Classification procedure
Ox. Sol. 2	H272	On basis of test data
Acute Tox. 4	H302	On basis of test data
Eye Irrit. 2	H319	On basis of test data
STOT SE 3	H335	On basis of test data
Aquatic Acute 1	H400	On basis of test data
Aquatic Chronic 1	H410	On basis of test data

### 16.5 Relevant H-statements (number and full text):

H272: May intensify fire; oxidiser.

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

EUH031: Contact with acids liberates toxic gas.

### 16.6 Training instructions:

Not applicable.

### 16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.



**16.8 Notice to reader:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Author:** Hangzhou REACH Technology Group Co., Ltd.    **Website:** [www.cirs-group.com](http://www.cirs-group.com)    **Tel:** 0571-87206555    **Email:** info@cirs-group.com