Chemical Safety Data Sheet MSDS / SDS

Sodium dichloroisocyanurate

Revision Date:2024-12-21 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Sodium dichloroisocyanurate
CBnumber	: CB9181452
CAS	: 2893-78-9
EINECS Number	: 220-767-7
Synonyms	: Sodium Dichloroisocyanurate,sdic

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 400-158-6606

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P220 Keep/Store away from clothing/…/combustible materials.

P221 Take any precaution to avoid mixing with combustibles/…

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly 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.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

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

P391 Collect spillage. Hazardous to the aquatic environment

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

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H272 May intensify fire; oxidizer

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

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

SECTION 3: Composition/information on ingredients

Substance

Product name	: Sodium dichloroisocyanurate
Synonyms	: Sodium Dichloroisocyanurate,sdic
CAS	: 2893-78-9
EC number	: 220-767-7
MF	: C3Cl2N3NaO3
MW	: 219.95

SECTION 4: First aid measures

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NOx) Hydrogen chloride gas Sodium oxides Combustible.

Avoid shock and friction.

In the event of decomposition: danger of explosion!

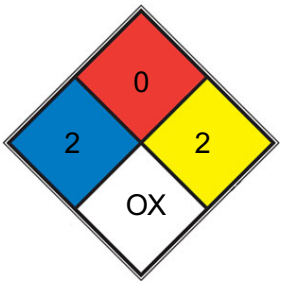
Advice for firefighters

No data available

Further information

No data available

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	2	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g. white phosphorus, potassium, sodium)
□	SPEC. HAZ.	OX	

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

Environmental precautions

No data available

Methods and materials for containment and cleaning up

Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Moisture sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	white powder
Odour	Chlorine
Odour Threshold	No data available d) pH 6,2 - 6,8 at 10 g/l at 25 °C Melting point/freezing point Initial boiling point and boiling range No data available No data available Flash point No data available Evaporation rate No data available Flammability (solid, gas) Upper/lower flammability or explosive limits The product is not flammable. - Flammability (solids) No data available Vapour pressure< 0,000 hPa at 20 °C Vapour density No data available Relative density No data available Water solubility 236,8 g/l at 25 °C - US-EPA- completely soluble Partition coefficient: n-octanol/water Autoignition temperature Decomposition temperature No data available No data available 240 °C - Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available Explosive properties May mass explode in fire. Oxidizing properties The substance or mixture is classified as oxidizing with the category 2.
Melting point/freezing point	No data available
Initial boiling point and boiling range	225°C
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable. - Flammability (solids)
Upper/lower flammability or explosive limits	No data available
Vapour pressure	< 0,000 hPa at 20 °C
Vapour density	No data available
Relative density	No data available
Water solubility	236,8 g/l at 25 °C - US-EPA- completely soluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available

Decomposition temperature	240 °C -
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	May mass explode in fire.
Oxidizing properties	The substance or mixture is classified as oxidizing with the

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

No data available

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong bases, Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 1.823 mg/kg (US-EPA)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: troclosene sodium, dihydrate LC50 Inhalation - Rat - male and female - 4 h - 0,27 - 1,17 mg/l

(OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - > 5.000 mg/kg (US-EPA)

Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns. - 24 h (US-EPA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye damage. (US-EPA)

Respiratory or skin sensitization

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: Regulation (EC) No. 440/2008, Annex, B.19 Result: negative

Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: Regulation (EC) No. 440/2008, Annex, B.17 Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Species: Rat

Cell type: Bone marrow Application Route: Oral

Method: OECD Test Guideline 475 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

Toxicity to fish

static test LC50 - Menidia beryllina (Inland silverside) - 8.000 mg/l - 96 h

(US-EPA)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h Remarks: (ECHA)

Toxicity to algae

static test ErC50 - Skeletonema costatum - > 100 mg/l - 72 h (ISO 10253)

Toxicity to bacteria

EC50 - activated sludge - > 4.500 mg/l - 3 h

(OECD Test Guideline 209)

Persistence and degradability

Biodegradability aerobic - Exposure time 8 h

Result: 100 % - Readily biodegradable. Remarks: (ECHA)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at
levels of 0.1% or higher.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

A powerful oxidizer. Dust may form explosive mixture with air. Violent reaction with reducing agents; organic matter; easily chlorinated or oxidized materials. Incompatible with oxidizers; contact may cause fires or explosions.Elevated temperatures or contact with acids, bases, tertiary amines, and acyl-chlorides may cause explosive polymerization.

Product

No data available

SECTION 14: Transport information

UN number

ADR/RID: 2465 IMDG: 2465 IATA: 2465

UN proper shipping name

	ADR/RID: DICHLOROISOCYANURIC ACID SALTS IMDG: DICHLOROISOCYANURIC ACID, SALTS	
IATA: Dichloroisocyanuric acid, salts		
14.3	Transport hazard class(es) ADR/RID: 5.1 IMDG: 5.1	IATA: 5.1
14.4	Packaging group ADR/RID: II IMDG: II	IATA: II
	Environmental hazards	

14.5	ADR/RID: yes IMDG Marine pollutant: yes	IATA: no
14.6	Special precautions for user No data available	

SECTION 15: Regulatory information

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

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

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

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

See ICSC 0126.