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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Trichloroisocyanuric Acid 200 g Tablets (TCCA)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

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

Product name	Trichloroisocyanuric Acid 200 g Tablets (TCCA)
Synonyms	TRICHLOROISOCYANURIC ACID; Symclosene; 87-90-1; Trichlorocyanuric acid; Symclosen; Chloreal
CAS No.	87-90-1
EC No.	201-782-8
Molecular formula	C3Cl3N3O3
Molecular weight	232.41 g/mol
Relevant identified uses	Disinfectant and sanitizing chlorinating agent for water-treatment formulations; review against actual registered and sold uses.
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	0086 21 5017 5386
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Website	www.richest-group.com
Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Oxidizing solids Category 2; Acute toxicity oral Category 4; Serious eye damage/irritation Category 2A; STOT SE 3 respiratory irritation; Aquatic Acute 1; Aquatic Chronic 1
Pictogram(s)	GHS03□GHS07□GHS09
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; H400 Very toxic to aquatic life; H410 Very toxic to aquatic life with long lasting effects
Precautionary statement(s)	P210; P220; P221; P261; P264; P270; P271; P273; P280; P301+P312+P330; P304+P340+P312; P305+P351+P338; P337+P313; P370+P378; P391; P403+P233; P405; P501
Other hazards	Forms hypochlorous acid on contact with water; A moderate skin, eye, and mucous membrane irritant; [Merck Index] A strong oxidant that reacts violently with combustible substances; Decomposed by water forming hypochloric acid and cyanuric acid; A mild skin irritant; A severe eye and respiratory tract irritant; Inhalation of dust or decomposition products may cause pulmonary edema; [ICSC]...

SECTION 3: Composition/information on ingredients

Component	Trichloroisocyanuric Acid 200 g Tablets (TCCA)
CAS No.	87-90-1
EC No.	201-782-8
Classification	Oxidizing solids Category 2; Acute toxicity oral Category 4; Serious eye damage/irritation Category 2A; STOT SE 3 respiratory irritation; Aquatic Acute 1; Aquatic Chronic 1
Concentration	>90% available chlorine

SECTION 4: First-aid measures

If inhaled	remove victim to fresh air.
In case of skin contact	flush with water.
In case of eye contact	irrigate with running water for 15 min.; call physician.
If swallowed	induce vomiting and call physician. (USCG, 1999)
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures

Suitable extinguishing media	Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Fight fire from protected location or maximum possible distance. Use flooding quantities of water on fire-involved containers.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	Special Hazards of Combustion Products: Toxic chlorine or nitrogen trichloride may be formed in fires.
Advice for firefighters	Fire Extinguishing Agents: Water in large amounts (USCG, 1999)

SECTION 6: Accidental release measures

Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered dry, sealable containers. Carefully collect remainder. Then store and dispose of according to local regulations.

SECTION 7: Handling and storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation or inhalation of dust, mist or vapour as applicable. Wash thoroughly after handling.
Conditions for safe storage, including incompatibilities	Keep container tightly closed in a well-ventilated place; store locked up; keep away from heat and combustible materials

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	No data available

SECTION 8: Exposure controls/personal protection

Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide adequate ventilation. Eyewash facilities should be available where contact is possible.
Eye/face protection	Dust mask or chlorine canister mask; goggles; rubber gloves (USCG, 1999)
Skin and body protection	Dust mask or chlorine canister mask; goggles; rubber gloves (USCG, 1999)
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties

Physical state	White pressed tablet, 200 g nominal
Colour	White crystalline powder or granules
Odour	Chlorine odor
Melting point / freezing point	249-251 °C
Boiling point / boiling range	No data available
Flammability	Special Hazards of Combustion Products: Toxic chlorine or nitrogen trichloride may be formed in fires.
Explosion / flammability limits	No data available
Flash point	> 250 °C (482 °F) open cup
Auto-ignition temperature	No data available
Decomposition temperature	>225 °C
pH	2.7-3.3 at 10 g/L at 25 °C
Viscosity	Not applicable to the neat solid; solution viscosity depends on concentration, temperature and test method.
Solubility	10 g/L at 20 °C
Partition coefficient n-octanol/water	0.26
Vapour pressure	0.00000012 [mmHg]
Density and/or relative density	2.07 g/cm3
Relative vapour density	No data available
Particle characteristics	White pressed tablet, 200 g nominal
Oxidizing properties	Oxidizing Category 2

SECTION 10: Stability and reactivity

Reactivity	Slightly hygroscopic [Hawley]. Slightly soluble in water. May react with water releasing gaseous chlorine.
Chemical stability	Stable under recommended storage conditions.

SECTION 10: Stability and reactivity

Possibility of hazardous reactions	TRICHLORO-S-TRIAZINETRIONE, DRY is an oxidizer. It reacts with combustible materials or ammonium salts, resulting in fire. It is thermally unstable, and reacts with small amounts of water to release toxic chlorine gas and explosive nitrogen trichloride. Reaction of this compound with ammonia or amines also produces nitrogen trichloride.
Conditions to avoid	NO contact with combustible substances.
Incompatible materials	A powerful oxidizer. Violent reaction with reducing agents, combustible materials.; Water reactive. Reacts with small amounts of water, releasing chlorine gas and nitrogen trichloride, which is a highly explosive compound when concentrated. Reaction with ammonia or amines produces nitrogen trichloride.
Hazardous decomposition products	>225 °C

SECTION 11: Toxicological information

Serious eye damage irritation	GHS classification: Serious eye damage/irritation Category 2A
Acute toxicity	LD50 Rat oral 406 mg/kg; LD50 Rat oral 750 mg/kg; LD50 Rabbit male and female dermal LD50 > 2000 mg/kg bw; LD50 Rabbit skin 20,000 mg/kg
Toxicological summary	/SIGNS AND SYMPTOMS/ Human systemic effects by ingestion: ulceration or bleeding from stomach. Toxicity symptoms include emaciation, lethargy, weakness, and delayed death.
Health effects	· Inhalation, ingestion or contact (skin, eyes) with vapors or substance may cause severe injury, burns or death.

SECTION 12: Ecological information

Ecotoxicity	LC50; Species: Anas platyrhynchos (Mallard duck, age 14 days) diet >10000 ppm for 8 days; LC50; Species: Anas platyrhynchos (Mallard duck) diet >5000 ppm for 8 days
Persistence degradability	AEROBIC: Cyanuric acid is ultimately the end product of use of chloroisocyanurates in bleaching, sanitizing, and disinfection applications. Since the N-chloro derivatives are biocidal, biodegradation studies have centered on the residual cyanuric acid, which has been shown to undergo biodegradation under environmental conditions(1).
Bioaccumulative potential	An estimated BCF of 3.1 was calculated for trichloroisocyanuric acid(SRC), using water solubility of 1.20X10+4 mg/L(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low (SRC).
Mobility in soil	The Koc of trichloroisocyanuric acid is estimated as 25(SRC), using a water solubility of 1.20X10+4 mg/L(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that trichloroisocyanuric acid is expected to have very high mobility in soil.
Other adverse effects	The rate constant for the vapor-phase reaction of trichloroisocyanuric acid with photochemically-produced hydroxyl radicals has been estimated as 3.0X10-12 cu cm/molecule-sec at 25 °C(SRC) using a structure estimation method(1).
Environmental fate	TERRESTRIAL FATE: Based on a classification scheme(1), an estimated Koc value of 25(SRC), determined from a water solubility of 1.2X10+4 mg/L(2) and a regression-derived equation(3), indicates that trichloroisocyanuric acid is expected to have very high mobility in soil(SRC).

SECTION 13: Disposal considerations

Product disposal methods	SRP: Criteria for land treatment or burial (sanitary landfill) disposal practices are subject to significant revision. Prior to implementing land disposal of waste residue (including waste sludge), consult with environmental regulatory agencies for guidance on acceptable disposal practices.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	2468
UN Proper Shipping Name	TRICHLOROISOCYANURIC ACID, DRY
Transport hazard class(es)	5.1
Packing group	II
Environmental hazards / Marine pollutant	ADR/RID: yes; IMDG marine pollutant: yes; IATA DGR: no (2024 SDS).
Special precautions for user	Keep containers closed and secured during transport. Follow applicable dangerous goods regulations.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	No data available

SECTION 16: Other information

Full text of H-Statements	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
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: PubChem Trichloroisocyanuric Acid (CID 6909): https://pubchem.ncbi.nlm.nih.gov/compound/6909
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.