



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Safety Data Sheet (MSDS)

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)

Trichloroisocyanuric Acid (C₃Cl₃N₃O₃)

SECTION 1: Identification

1.1 Product Identifiers

- Product Name: Trichloroisocyanuric Acid (TCCA)
- Product Number: TCCA-CAS87901-202512
- Brand: SIGALD
- CAS-No.: 87-90-1
- Synonyms: TCCA; Trichloroisocyanuric Acid; Chlorinated Isocyanurate
- Chemical Family: Halogenated Isocyanurate Salt

1.2 Details of the supplier of the safety data sheet

- Company : NEWAY SINOPHC TECH. LIMITED
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- Telephone : +86-021-50350029
- Fax : +86-021-50350029

1.3 Emergency telephone

Emergency Phone # : +86-021-50350029
(CHEMTREC)

1.4 Uses & Restrictions - Identified Uses: Water disinfection (drinking water, sewage, swimming pools); surface disinfection (medical, food contact); bleaching (textiles, paper); wastewater treatment (sterilization, deodorization). - Uses Advised Against: Pharmaceutical injection; mixing with acids, ammonia, or reducing agents.

SECTION 2: Hazards Identification

2.1 GHS Classification: Skin corrosion/irritation (Category 1B); Eye damage (Category 1); Oxidizing solid (Category 1); Environmental hazard (Category 1, Aquatic toxicity)

2.2 GHS Label Elements - Hazard Pictogram: (Corrosion) + ∞ (Oxidizer) + (Aquatic hazard) - Signal Word: DANGER - Hazard Statements: H314 (Causes severe skin burns and eye damage); H270 (May cause or intensify fire; strong oxidizer); H400 (Very toxic to aquatic life) - Precautionary Statements: P260, P280, P301+P330+P331, P304+P340, P305+P351+P338, P391, P501

2.3 Physical/Chemical Hazards: Strong oxidizer; reacts violently with acids (releases toxic chlorine gas); incompatible with ammonia, reducing agents, and organic matter; may ignite combustible materials on contact.

2.4 Health Hazards: Severe skin/eye burns; inhalation of dust irritates respiratory tract (coughing, chest tightness); ingestion causes gastrointestinal burns and toxicity.

2.5 Environmental Hazards: Highly toxic to aquatic organisms; long-term adverse effects on aquatic ecosystems.

SECTION 3: Composition/Information on Ingredients

Substance/Mixture: Pure Substance



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Component	Content (w/w)	CAS-No.	Hazard Classification
Trichloroisocyanuric Acid	≥ 98.0%	87-90-1	Skin Corros. 1B; Eye Dam. 1; Oxid. Solid 1; Aquatic Toxicity 1

SECTION 4: First Aid Measures

- Inhaled: Move to fresh air; administer oxygen if breathing is difficult; seek medical attention immediately (chlorine gas may cause pulmonary irritation). - Skin Contact: Remove contaminated clothing; rinse skin with plenty of running water for ≥15 minutes; consult a doctor for burns. - Eye Contact: Hold eyelids open; rinse with water/normal saline for ≥15 minutes; seek emergency medical help (risk of corneal damage). - Swallowed: Do not induce vomiting; rinse mouth with water; bring this MSDS to the doctor (caustic/toxic effects risk).

SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Water spray, foam, CO₂, dry powder. - Unsuitable Media: Do not use water jet on concentrated dust (may disperse and intensify fire). - Special Hazards: Non-combustible but strong oxidizer; intensifies fire when in contact with organic matter; decomposes on heating to release chlorine gas and cyanuric acid fumes. - Firefighter Advice: Wear SCBA and full corrosion-resistant protective clothing; cool containers with water spray; avoid inhalation of decomposition fumes.

SECTION 6: Accidental Release Measures

- Personal Precautions: Wear full PPE (chemical goggles, face shield, nitrile gloves, acid-resistant clothing, FFP2 dust mask/respirator). - Environmental Precautions: Prevent runoff into sewers/rivers; contain with sandbags; avoid aquatic contamination. - Cleanup: Small spill - sweep into sealed containers and neutralize with sodium bisulfite; large spill - dike and transfer to corrosion-resistant tanks for professional treatment.

SECTION 7: Handling and Storage

- Handling: Operate in well-ventilated area; use local exhaust ventilation to avoid dust accumulation; avoid contact with skin/eyes; do not mix with acids, ammonia, or organic substances. - Storage: Cool, dry, well-ventilated warehouse (≤30°C); keep container tightly closed; avoid direct sunlight and high humidity; store separately from acids, reducing agents, combustibles, and organic materials. - Shelf Life: 24 months (unopened, specified conditions); protect from moisture (absorbs water and loses chlorine content).

SECTION 8: Exposure Controls/Personal Protection

- Engineering Controls: Install local exhaust ventilation; use closed transfer systems to minimize dust; avoid generating dust. - PPE: Chemical safety goggles + face shield; nitrile rubber gloves (0.15mm+); acid-resistant protective clothing; FFP2 dust mask (for powder handling) or half-mask respirator with chlorine/acid gas cartridges (if vapors are generated). - Hygiene Measures: Wash hands thoroughly with soap and water after work; do not eat/drink/smoke in the workplace.

SECTION 9: Physical and Chemical Properties



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Physical State: Solid (crystalline powder/granular); Color: White; Odor: Slight chlorine odor pH (1% Solution, 25°C): 2.0-4.0; Melting Point: >225°C (decomposes); Solubility: 1.2 g/100 mL (20°C, water) Density (25°C): 2.20-2.30 g/cm³; Particle Size: 80-200 Mesh; Vapor Pressure (25°C): <0.1 hPa Decomposition Temperature: >225°C; Oxidizing Properties: Strong oxidizer; Flash Point: Not applicable (non-combustible)

SECTION 10: Stability and Reactivity

- Stability: Stable under cool, dry, sealed conditions; decomposes on heating, moisture absorption, or contact with acids. - Incompatibilities: Acids (HCl, H₂SO₄), ammonia, reducing agents (Fe²⁺, sulfites), combustibles, and organic matter. - Hazardous Decomposition Products: Chlorine gas (Cl₂), cyanuric acid, nitrogen oxides, sodium chloride (if neutralized).

SECTION 11: Toxicological Information

- Acute Toxicity: Oral (Rat, LD₅₀): 1200 mg/kg; Dermal (Rabbit, LD₅₀): >2000 mg/kg - Skin/Eye Irritation: Severe skin burns and eye damage (GHS 1B/1). - Respiratory Toxicity: Inhalation of dust/vapors causes coughing, chest tightness, and mucosal irritation.

SECTION 12: Ecological Information

- Fish (Zebrafish, LC₅₀): 0.25 mg/L (96-hour exposure) - Daphnia (EC₅₀): 0.15 mg/L (48-hour exposure) - Biodegradability: Biodegradable but toxic to aquatic organisms at low concentrations.

SECTION 13: Disposal Considerations

- Product Waste: Neutralize with sodium bisulfite to eliminate oxidizing and toxic properties; dispose via licensed hazardous waste treatment facilities. - Packaging Waste: Rinse thoroughly with water; dispose as hazardous waste or recycle if permitted.

SECTION 14: Transport Information

- UN Number: ADR/RID: UN 2468; IMDG: UN 2468; IATA-DGR: UN 2468 - UN Proper Shipping Name: Chloroisocyanurate, dry, trichloro- - Transport Class: 5.1 (Oxidizer); Packaging Group: I; Environmental Hazards: Yes (Marine Pollutant) - Special Precautions: Transport in sealed, corrosion-resistant containers; avoid collision, moisture, and mixing with incompatible substances.

SECTION 15: Regulatory Information

- National Regulations (China): Complies with Hazardous Chemical Safety Management Regulation; meets GB/T 22388-2008. - International Regulations: GHS Rev.9 (Corrosion 1B, Oxidizer 1, Aquatic Toxicity 1); REACH (EU, not in SVHC List); TSCA (US, listed).

SECTION 16: Other Information

- Revision Date: 15 DEC 2027 - Disclaimer: Based on current scientific knowledge; supplier not liable for damage caused by improper use.