

Material Safety Data Sheet

WEGO CHEMICAL & MINERAL CORP

239 Great Neck Road
Great Neck, NY 11021

MAXI-CHLOR TABS, STICKS,
SLY-CHLOR TABS, J-90 STICKS
W/HOLE CARTRIDGE, SPECTRUM SM

Date of Revision: 4/2000

Trichlorocyanuric Acid CHLORINE TABS 3" sticks

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Trichlorocyanuric Acid

Chemical Formula: C₃Cl₃N₃O₃

CAS Number: 87-90-1

Other Designations: Trichloroisocyanuric acid, Isocyanuric chloride, N,N,N'-trichloroisocyanuric acid, 1,3,5-trichloro-1,3,5-triazinetrione, 1,3,5-trichloro-s-triazine-2,4,6-trione.

Derivation: Prepared by chlorinating cyanuric acid in sodium hydroxide (NaOH) solution.

General Use: Used as a swimming pool sanitizer to reduce bacteria count; in commercial and household bleaches, industrial deodorants, and dishwashing compounds; as an active ingredient in detergent sanitizers.

Emergency Telephone: 1-800-424-9300 (Chemtrec)

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	EINECS/ELINCS	% wt or % vol
Trichlorocyanuric Acid	87-90-1	201-782-8	

Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Trichlorocyanuric Acid	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.

Section 3 - Hazards Identification

☆☆☆☆ Emergency Overview ☆☆☆☆

Cautions: Trichloroisocyanuric acid is a severe eye, mucous membrane, and skin irritant. A powerful oxidizer, it is a fire risk in contact with organic materials and releases hypochlorous acid on contact with water.

HMIS	
H	3
F	0
R	1
PPE†	
†Sec. 8	

Potential Health Effects

Primary Entry Routes: Inhalation, ingestion, skin contact.

Target Organs: Skin, eyes, and mucous membranes.

Acute Effects : Vapor inhalation causes eyes, nose, and throat irritation, coughing and difficulty breathing. Strong solutions (over 5%) may decompose to nitrogen trichloride which causes severe tearing and is explosive. Symptoms of ingestion include pain and inflammation of the mouth, pharynx, esophagus, and stomach, vomiting and hemorrhage, circulatory collapse with cold and clammy skin, cyanosis (a dark purplish color of the skin), shallow respirations, confusion, delirium, and coma. Skin contact may cause vesicular eruptions and eczematoid dermatitis.

Carcinogenicity: The NTP, IARC, and OSHA do not list trichloroisocyanuric acid as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: None reported.

Chronic Effects: None reported.

Section 4 - First Aid Measures

Inhalation:

Eye Contact: Gently lift the eyelids and flush immediately and continuously with flooding amounts of water until transported to an emergency medical facility. Consult a physician immediately.

Skin Contact: Quickly remove contaminated clothing. Rinse with flooding amounts of water for at least 15 min. For reddened or blistered skin, consult a physician. Wash affected area with soap and water.

Ingestion: Never give anything by mouth to an unconscious or convulsing person. If ingested, have that conscious person drink 1 to 2 glasses of water or milk. **DONOT INDUCE VOMITING.** If victim is unconscious or convulsing, do nothing except keep victim warm until medical help arrives.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians:

Trichloro cyanuric Acid

Special Precautions/Procedures:

Section 5 - Fire-Fighting Measures

Flash Point: None reported

Flash Point Method:

Burning Rate:

Autoignition Temperature: None reported

LEL: None reported

UEL: None reported

Flammability Classification:

Extinguishing Media: For small fires, use dry chemical, CO₂, or water spray. For large fires, use water spray or fog. *Do not* add water directly on trichloroisocyanuric acid since it releases hypochlorous acid on contact with water. Since containers may explode in fire, use water spray to cool fire-exposed containers and reduce vapors.

Unusual Fire or Explosion Hazards: Trichloroisocyanuric acid is a powerful oxidizer that is a fire risk in contact with organic materials.

Hazardous Combustion Products:

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill /Leak Procedures: Notify safety personnel, remove all heat and ignition sources, and provide adequate ventilation. Cleanup personnel should protect against vapor inhalation and skin or eye contact. Keep combustibles (paper, wood, oil) away from spilled material.

Small Spills: For small dry spills, use a clean shovel to place material into a clean, dry container and cover. For liquid spills, absorb spill with an inert, noncombustible material and with a clean shovel place material into an appropriate container for disposal.

Large Spills

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Cleanup:

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions/Storage Requirements: Store in tightly closed containers in a cool, well-ventilated area away from incompatible materials, flammable liquids, organic matter, or easily chlorinated or oxidized materials. Trichloroisocyanuric acid in the dry state may be stored for at least one year. Protect containers from physical damage. Containers may rupture if exposed to heat or become contaminated or wet. Place containers on a pallet to protect against contact with moisture. Do not use wooden pallets since trichloroisocyanuric acid is incompatible with organic materials.

Section 8 - Exposure Controls./ Personal Protection

Engineering Controls:

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Trichloro cyanuric Acid

Section 9 - Physical and Chemical Properties

Physical State: Solid	Water Solubility: 0.2% at 25 °C
Appearance and Odor: White crystals with chlorine odor.	Other Solubilities:
Odor Threshold:	Boiling Point:
Vapor Pressure:	Freezing/Melting Point: 475 to 477 °F (246 to 247 °C)
Vapor Density (Air=1):	Viscosity:
Formula Weight: 232.42	Refractive Index:
Density:	Surface Tension:
Specific Gravity (H₂O=1, at 4 °C): >1 at 20 °C (solid)	% Volatile:
pH: 4.4	Evaporation Rate:

Section 10 - Stability and Reactivity

Stability: Trichloroisocyanuric acid is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: STRONG REDUCING AGENTS, STRONG BASES, NITROGEN CONTAINING COMPOUNDS, CALCIUM HYPOCHLORITE. REACTS WITH WATER TO FORM HAZARDOUS QUANTITIES OF NITROGEN TRICHLORIDE WHICH IS VIOLENTLY EXPLOSIVE.

Conditions to Avoid: MAY DECOMPOSE ON EXPOSURE TO MOIST AIR OR WATER.

Hazardous Decomposition Products: Thermal oxidative decomposition of trichloroisocyanuric acid can produce toxic fumes of chlorine (Cl₂) and nitrogen oxides (NO_x).

Section 11- Toxicological Information

Toxicity Data:^{*}

Rabbit, skin: 500 mg produces severe irritation

Rabbit, eye: 50 mg administered for 24 hr produces severe irritation

Acute Inhalation Effects:

Human, oral, LD₅₀: 3570 mg/kg produces gastrointestinal effects (ulceration or bleeding from stomach)

Acute Oral Effects:

Rat, oral, LD₅₀: 406 mg/kg

ORL-HMN LD₅₀: 3570 MG/KG

ORL-MAM LD₅₀: 750 MG/KG

^{*} See NIOSH, RTECS (XZ1925000), for additional toxicity data.

Section 12 - Ecological Information

Ecotoxicity:

Environmental Fate:

Environmental Degradation:

Soil Absorption/Mobility:

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Disposal Regulatory Requirements:

Container Cleaning and Disposal:

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name:

Trichloroisocyanuric acid, dry

Shipping Symbols:

Hazard Class: 5.1

ID No.: UN2468

Packing Group: II

Label: Oxidizer

Special Provisions (172.102):

Packaging Authorizations

a) Exceptions: 173.153

b) Non-bulk Packaging: 173.217

c) Bulk Packaging: 173.217

Quantity Limitations

a) Passenger, Aircraft, or Railcar:

b) Cargo Aircraft Only:

Vessel Stowage Requirements

a) Vessel Stowage:

b) Other:

Trichlorocyanuric Acid

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 87-90-1 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 87-90-1: acute, flammable, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Trichloroisocyanuric acid, 97% can be found on the following state right to know lists: New Jersey, Florida, Pennsylvania, Massachusetts.

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN O

Risk Phrases:

R 22 Harmful if swallowed.

R 31 Contact with acids liberates toxic gas.

R 36/37 Irritating to eyes and respiratory system.

R 8 Contact with combustible material may cause fire.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 41 In case of fire and/or explosion do not breathe fumes.

S 8 Keep container dry.

WGK (Water Danger/Protection)

CAS# 87-90-1: No information available.

Canada

CAS# 87-90-1 is listed on Canada's DSL/NDSL List.

WHMIS: Not available.

CAS# 87-90-1 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

Disclaimer: All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable. However, it is the users responsibility to determine the safety, toxicity and suitability for its own use of this product. WEGO CHEMICAL & MINERAL CORP. DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE USE BY OTHERS OF THIS PRODUCT.