



Safety Data Sheet

Chloramine-T Trihydrate

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Chloramine -T trihydrate

Synonyms/Generic Names: N-Chloro-p-toluenesulfonamide, sodium salt; Tosylchloramide sodium; Sodium p-toluenesulfonchloramide, trihydrate; N-Chloro-4-methylbenzenesulfonamide sodium salt; Benzene sulfonamide, N-chloro-4-methyl-, trihydrate.

Product Number: CP-1255

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: ChemPure Brand Chemicals
39103 Warren Road
Westland, MI 48185

For More Information Call: 734-729-1805 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: CHEMTREC – 800-424-9300 or 703-527-3887 (24 Hours/Day, 7Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Acute Oral Toxicity – [Category 4]
Eye Damage/Irritation- [Category 1]
Respiratory Sensitization - [Category 1]
Skin Corrosion/Irritation- [Category 1]
Specific target organ toxicity (single exposure)- [Category 3]

Target Organs: Respiratory system.

Signal Words: Danger

Pictograms:



GHS Classification:

Skin corrosion/ Irritation	Category 1
Serious eye damage	Category 1
Specific target organ toxicity – single exposure	Category 3 - Respiratory system
Acute oral toxicity	Category 4

GHS Label Elements, including precautionary statements:

Signal Word: Danger

Hazard Statements:

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements:

P260	Do not breath dust/fume/gas/mist/vapours/spray
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P285	In case of inadequate ventilation, wear respiratory protection.

Response:

P303 + P361 + P353	IF ON SKIN (or hair) - Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED – Remove victim to fresh air and keep at rest in a position 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.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel sick.

Supplemental hazard information

EUH031	Contact with acids liberates toxic gas.
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Potential Health Effects

Eyes	Risk of serious damage to eyes.
Inhalation	Inhalation may cause central nervous system effects. May cause irritation of respiratory tract. May be harmful if inhaled.
Skin	May cause irritation. May be harmful in contact with skin.
Ingestion	Aspiration hazard. May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic Effects	Tumorigenic effects have been reported in experimental animals. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects.
Aggravated Medical Conditions	Central nervous system disorders. Gastrointestinal tract. Pre-existing eye disorders. Skin disorder.

NFPA Ratings

Health	3
Flammability	1
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	3
Fire	1
Reactivity	0
Personal	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
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Chloramine-T trihydrate	>98	7080-50-4	204-854-7	(C ₇ H ₄ SO ₂ NCl)Na · 3 H ₂ O	281.7 g/mol
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4. FIRST-AID MEASURES

Eyes	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Get medical attention if symptoms occur.
Skin	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Ingestion	Do not induce vomiting. Immediate medical attention is required. Drink plenty of water. Never give anything by mouth to an unconscious person.
Note to Physician	Treat symptomatically.

Most important symptoms and effects: Causes burns by all exposure routes. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Alcohol-resistant foam, Carbon dioxide (CO ₂), Dry chemical, dry sand.
Specific hazards during fire fighting	Explosion risk in case of fire. Fight fire remotely due to the risk of explosion.
Hazardous combustion products	These products include: carbon oxides, nitrogen oxides, sulfur oxides, halogenated compounds, metal oxides.
Further Information	Highly toxic HCl gas is produced during combustion.
Special protective equipment for firefighters	Wear an approved positive pressure self-regulated breathing apparatus in addition to standard firefighting gear. Combat fire from a sheltered position.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Wear appropriate personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions	Should not be released into the environment. Any release to the environment may require reporting to federal/national or local agencies.
Methods and materials for containment and cleaning up	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling is performed in a well ventilated place. Wear suitable protective equipment. Be careful not to cause leakage, overflow, or dispersion. Steam should not be generated unnecessarily. Keep away from heat/sparks/open flame/hot surfaces. No smoking. Take measures to prevent the buildup of electrostatic charge. Use explosion-proof equipment. Avoid shock and friction. Wash hands and face before breaks and immediately after handling the product.

Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Store in a tightly closed container. Store in a dry, cool and ventilated area. Keep away from heat and oxidizing agents. Be sure not to give the container unexpected impacts. Light sensitive and Air sensitive.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Controls:

Engineering measures: Ensure adequate ventilation. Use explosion-proof electrical/ventilating/equipment.

Personal Protection

Eyes	Wear chemical safety glasses and/or full-face shield where dust formation is possible.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear rubber gloves and protective clothes with lab coat or coveralls/apron.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Powder, liquid, off-white
Odor	Slightly chlorine, chlorine-like odor
Odor threshold	Information not available
pH	8-11, 50g/L H ₂ O at 20°C
Melting point/freezing point	170-177°C (338 – 350.6°F)
Initial boiling point and boiling range	Information not available
Flash point	192 °C (377.6 °F)
Density	1.43 g/mL
Evaporation rate (BuAc = 1)	Information not available
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	13.7% upper / 2.1% lower
Vapor pressure	14.3 mm Hg or 19.0 mbar (68°F / 20°C)
Vapor density	0.6 (air=1)
Relative density	2.1
Surface tension	67.23 mN/m (19.9 °C
Refractive Index	1.3862 (20°C)
Solubility (ies)	Soluble in alcohol, insoluble in benzene, ether.
Partition coefficient: n-octanol/water	Log Pow : 0.84 (calculated)

Auto-ignition temperature	600°C
Decomposition temperature	>60 °C
Molecular Weight	281.69
Molecular Formula	C ₇ H ₇ CINNaO ₂ S · 3H ₂ O

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Yes.
Conditions to Avoid	Excess Heat. Incompatible products.
Incompatible Materials	Strong oxidizing agents, acids, ammonia and ammonium salts.
Hazardous Decomposition Products	Hydrogen chloride gas, Nitrogen oxides (NO _x), Carbon monoxide (CO), Carbon dioxide (CO ₂), Chlorine, Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not listed
Eyes	Not Available
Respiratory	Not listed
Ingestion/oral	LD50 Oral – rat – 935 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Redness, irritation
Eyes	Redness, irritation
Respiratory	Irritation of mucous membranes, coughing, dyspnea, drowsiness.
Ingestion	Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain
Carcinogenicity	No data available.
Chronic Toxicity	Not Available
Teratogenicity	Teratogenic effects have occurred in experimental animals.
Mutagenicity	Bacterial mutagenicity: Ames test is negative.
Reproductive Effects	No data available
Developmental Effects	No data available.
Embryotoxicity	No data available.
Specific Target Organ Toxicity	Not Available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains or water reservoirs, toxic to aquatic life.

Aquatic Vertebrate	LC50 (Pimephales promelas): 6.52 – 7.51 mg/L, exposure for 96 hours
Aquatic Invertebrate	LC50 (daphnid): 4.5 mg/L, exposure for 48 hours. LC50 (Oncorhynchus mykiss) : 1.63-2.19 mg/L, exposure for 96 hours.
Terrestrial	Not Available
Persistence and Degradability	Readily biodegrades.
BOD -5	Not available
BOD-20	Not available
COD	Not available
ThOD	0.88 mg/L
Bioaccumulative Potential	Log Pow: -1.3 (experimental)
Mobility in Soil	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

14. TRANSPORT INFORMATION

US DOT	UN3263, 8 Corrosive substance, solid, Basic, Organic, N.O.S., Chloramine-T, III
TDG	UN3263, 8 Corrosive substance, solid, Basic, Organic, N.O.S., Chloramine-T, III
IMDG	UN3263, 8 Corrosive substance, solid, Basic, Organic, N.O.S., Chloramine-T, III
Marine Pollutant	No
IATA/ICAO	UN3263, 8 Corrosive substance, solid, Basic, Organic, N.O.S., Chloramine-T, III

Special precautions for user: Warning – Corrosive substances.

15. REGULATORY INFORMATION

TSCA Inventory Status	Listed
DSCL (EEC)	Listed
California Proposition 65	This product does not contain any Proposition 65 chemicals.
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Not Listed
SARA 312	Not Listed
SARA 313	Not Listed
WHMIS Canada	Not Listed

NFPA Rating

Health: 3
Flammability: 1
Reactivity: 1

HMIS Classification

Health: 3
Flammability: 1
Physical: 0

16. OTHER INFORMATION

Revision	Date
Revision 1	11-22-2021

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