CHLORAMINE-T
MATERIAL SAFETY DATA SHEET

1. Product and Distributor:

Product Name: CHLORAMINE-T, n-chloro-para toluene sulfonamide sodium salt
Use of Product: Treatment of select cooling water systems.

Distributor: OPTI TEMP Inc.
PO Box 5246, Traverse City, MI 49696 (U.S.A.)
Tel: (231) 946-2931
Fax: (231) 946-0128

2. Chemical Characterization:

Formula: C7H7SO2N NaCL (3H2O)
CAS #: 127-65-1
Molecular Weight: 281.69 g/mole

3. Hazards Identification:

The Hazardous Materials Index Rating is as follows: Health=2; Flammability=1; Reactivity=1
Product contains no hazardous ingredients per CFR 1910.1200

4. First Aid Measures:

First Aid: In case of contact, immediately flush eyes or skin with water for at least 15 minutes while removing all contaminated clothing boots or shoes. If inhaled, remove to fresh air, if not breathing give artificial respiration. If breathing is difficult, give oxygen. If ingested and conscious, give several glasses of water. Call a physician. Wash contaminated clothing before reuse.

5. Fire-fighting methods:

Extinguishing Media: Water, Dry Chemical, CO2, Foam
Special Fire Fighting Procedures: Wear full protective equipment including self-contained breathing apparatus (eye, body, respiratory).
Unusual Fire Hazards: Product may decompose rapidly if heated above 130C.

6. Accidental release measures:

Acute Effects: May be harmful if swallowed, inhaled or absorbed through the skin or eyes. Dust is irritating to the eyes, mucous membranes and upper respiratory tract. This material may cause skin irritation.
Effects of Overexposure: Long term effects are not known. Prolonged and repeated contact with this chemical may be harmful. Body contact with this chemical may be harmful and should be avoided.

7. Handling and Storage:

Always use personal protective equipment and follow safe laboratory practices during handling and storage of this chemical.
Handle only in well ventilated areas.
Do not get in eyes or on skin or clothing.
Do not take internally.
Do not breathe dust.
Do not expose container to heat.
Do not reuse containers.
Clean up spills as they occur.
Do not mix any foreign materials since they can hasten decomposition.

8. Exposure Controls and Personal Protection:

Utilize protective rubber gloves and apron. Use in adequately ventilated area. Utilize sufficient general or local exhaust to control dust below levels of 10 milligrams per cubic meter. Use a NIOSH approved respirator for dust. These protective measure should be considered the minimum protection when handing this product. Additional protection may be advisable depending upon conditions of use.

9. Physical and Chemical Properties:

Boiling Point: NA	SP Gravity: NA	Melting Point: 167-169 C dec.
% Volatiles: Nil	Appearance: White Powder	PH: 7 to 9

Available Active Chlorine: 24.8 – 25.5% (Typical 25.0%) (1 gram in 400 grams water)
Solubility (H2O): 15% @ 25C, Insoluble in benzene, chloroform and most ethers, soluble 7.5% in 95 % alcohol @ 20C (with decomposition)

10. Stability and Reactivity:

Instability: Stable at ambient conditions. Material is an oxidizer, contact with other material may cause fire.
Hazardous Polymerization: Not expected at ambient conditions.
Hazardous Decomposition: This material is an oxidizer and should not be stored with materials that are easily reduced. May decompose rapidly if temperatures reach 60C or above.
Compatibility: Incompatible with many organic substances, some acids and ammonium compounds, stability in formulated products must be tested on individual basis. Packaging materials must be tested on an individual basis.

11. Toxicological Information:

National Toxicology Program Annual Report Carcinogen Listing: Not known to be a carcinogen.

12. Ecological Information:

Environmental Fate: No information found.
Environmental Toxicity: Toxic to fish and aquatic organisms.

13. Disposal considerations:

Spill: Sweep up and place in a closed container for disposal. Avoid dust by wearing a dust mask. Protect hands with gloves. Avoid getting on clothing. Wash clothing after handling product.
Disposal: Collect and dispose of all the waste in accordance with applicable local, state and federal laws. Neutralizing with chemicals such as the reducing agent sodium metabisulfite.

14. Transportation Information:

U.S. Department of Transportation Hazard Class: "Not Regulated"

15. Regulatory Information:

\Chemical Inventory Status - Part 1\

Ingredient	TSCA	EC	Japan	Australia
Chloramine-T (127-65-1)	Yes	Yes	Yes	Yes

\Chemical Inventory Status - Part 2\

		--Canada--		
Ingredient	Korea	DSL	NDSL	Phil.
Chloramine-T (127-65-1)	No	Yes	No	Yes

\Federal, State & International Regulations - Part 1\

	-SARA 302-		------SARA 313------	
Ingredient	RQ	TPQ	List	Chemical Catg.
Chloramine-T (127-65-1)	No	No	No	No

\Federal, State & International Regulations - Part 2\

		-RCRA-	-TSCA-
Ingredient	CERCLA	261.33	8(d)
Chloramine-T (127-65-1)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
Reactivity: No (Pure / Solid)

16. Other Information:

The data provided is correct to the best of our knowledge. We shall not be held liable for any damages resulting from handling, storage, disposal or contact with this product.