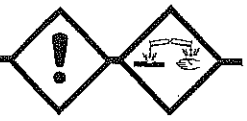
MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	Quadrasperse® CL4894
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800) 424–9300 (Toll Free) (703) 527–3887
Address (Corporate Headquarters):	4461 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800) 648–4579
Date of MSDS:	January 7, 2011

Section 2. Hazard(s) Identification



Signal Word: **DANGER!**

Hazard Statement(s):

Causes severe skin burns and eye damage.
Causes serious eye damage.
Harmful in contact with skin.
Harmful if inhaled.
Harmful if swallowed.

Precautionary Statement(s):

Wear protective gloves/clothing and eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Use only outdoors or in a well–ventilated area.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt.%
Sodium hydroxide	1310–73–2	1 – 5
2–Phosphono–1,2,4–butanetricarboxylic acid, sodium salt	40372–66–5	3 – 7
Tolyltriazole, sodium salt	64665–57–2	3 – 7
Sodium molybdate	7631–95–0	0.5 – 1.5

Section 4. First Aid Measures

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
Eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin:	Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re–use. Immediately call a poison center or doctor/physician.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
Notes to Physician:	N/A
Additional First Aid Remarks:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	Product may emit toxic gases or fumes under fire conditions.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive–pressure, NIOSH approved, self–contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1–800–424–8802.

Section 7. Handling and Storage

Handling: Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage: Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Sodium hydroxide	ACGIH TLV	2 mg/m³ Ceiling
	OSHA PEL	2 mg/m³ TWA
2–Phosphono–1,2,4–butanetricarboxylic acid, sodium salt		N/E
Tolyltriazole, sodium salt		N/E
Sodium molybdate		N/E

Carcinogenicity Category

Component	Source	Code	Brief Description
Sodium hydroxide			N/E
2–Phosphono–1,2,4–butanetricarboxylic acid, sodium salt			N/E
Tolyltriazole, sodium salt			N/E
Sodium molybdate			N/E

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full–face shield. Maintain eyewash fountain in work area.

Skin: Maintain quick–drench facilities in work area.
Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory: If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29

CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Dark Straw, Clear
Specific Gravity:	1.191 @ 20°C
pH:	13.0 @ 20°C, 100.0%
Freezing Point:	25°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Boiling Point:	212°F
Solubility in Water:	Complete
Evaporation Rate:	As Water
Vapor Density:	As Water
Molecular Weight:	N/D
Viscosity:	<100
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	9.93 lb/ga
Vapor Pressure:	As Water
% VOC	0

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.

Incompatibility with Various Substances: Acids, Strong oxidizers

Hazardous Decomposition Products: Oxides of carbon, Oxides of nitrogen

Possibility of Hazardous Reactions: None known.

Section 11. Toxicological Information

Chemical Name	Exposure	Type of Effect	Concentration	Species
Sodium hydroxide	Oral	LD50	300 mg/kg	Rat
	Dermal	LD50	1350 mg/kg	Rabbit
2–Phosphono–1,2,4–butanetricarboxylic acid, sodium salt	Dermal	LD50	>4000 mg/kg	Rat
	Oral	LD50	>6500 mg/kg	Rat
	Inhalation	LC50	>3000 mg/m³	Rat
Tolyltriazole, sodium salt	Oral	LD50	920 mg/kg	Rat

	Dermal	LD50	>2 g/kg	Rabbit
Sodium molybdate	Oral	LD50	2810 mg/kg	Rat

Comments: None.

Section 12. Ecological Information

Species	Duration	Type of Effect	Test Results
Mysid Shrimp	48h	LC50	>1000 mg/l
Fathead Minnow	96h	LC50	783.9 mg/l
Inland Silverside	96h	LC50	>1000 mg/l
Ceriodaphnia dubia	48h	LC50	1000 mg/l

Comments: Aquatic toxicity data is based on testing done on an earlier formulation that was identical in all respects except sodium hydroxide has been substituted for potassium hydroxide.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
EPA corrosivity characteristic hazardous waste D002 when disposed of in the original product form.

Section 14. Transport Information

DOT Classification

DOT Name: SODIUM HYDROXIDE SOLUTION
Technical Name: N/A
Hazard Class: Corrosive
UN/NA#: UN1824
Packing Group: PGII

Section 15. Regulatory Information

Inventory Status

United States (TSCA): All ingredients listed.
Canada (DSL/NDSL): All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Sodium hydroxide	N/A	N/A	1000
2–Phosphono–1,2,4–butanetricarboxylic acid, sodium salt	N/A	N/A	N/A
Tolyltriazole, sodium salt	N/A	N/A	N/A
Sodium molybdate	N/A	N/A	N/A

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Sodium hydroxide	MA, MN, NY, PA, WA
2–Phosphono–1,2,4–butanetricarboxylic acid, sodium salt	None
Tolyltriazole, sodium salt	None
Sodium molybdate	None

International Regulations

Canada

WHMIS Classification: D2B (Toxic Material)
E (Corrosive Material)

Controlled Product Regulations (CPR): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Section 16. Other Information

HMIS Hazard Rating

Health:	2
Flammability:	0
Physical Hazard:	1
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha–numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end–user must determine if the code is appropriate for their use.

NSF: N/A

FDA: N/A

KOSHER: This product is certified by the Orthodox Union as kosher pareve. Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Vernon, CA.

FIFRA: N/A

Other: None

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Regulatory Affairs Department

Disclaimer

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