

MATERIAL SAFETY DATA SHEET

CWC 1354S

SECTION 1:
IDENTIFICATION

Company Name:	CoolingTowerChemicals.com: By Chemicals Direct
Address:	885 Woodstock Rd, Ste, 430-111 Roswell, GA 30075
Phone No.	(800) 658-7716
Fax No.	(877) 209-1556
Emergency Phone No.	CHEM-TEL 800-255-3924
Date Prepared:	9/26/02
Date Revised:	5/13/09

SECTION 2:
INGREDIENTS

<u>MATERIAL</u>	<u>CAS NO.</u>	<u>%</u>
2-PHOSPHONOBUTANE-1, 2,4-TRICARBOXYLIC ACID, POTASSIUM SALT	3858-78-7	1 - 5
PHOSPHONOCARBOXYLIC ACID, POTASSIUM SALT	PROPRIETARY	1 - 5
HYDROXYPHOSPHONOACETIC ACID, POTASSIUM SALT	129836-12-0	1 - 5
SODIUM TOLYTRIAZOLE	64665-57-2	1 - 5
POLYACRYLIC ACID COPOLYMERS, SODIUM AND POTASSIUM SALT	PROPRIETARY	1 - 5
SODIUM MOLYBDATE	7631-95-0	< 1
POTASSIUM HYDROXIDE	1310-58-3	< 1

SECTION 3:
HEALTH HAZARDS

Ingestion:	MAY BE TOXIC IN CONCENTRATED FORM. DO NOT TAKE INTERNALLY.
Inhalation:	NOT A LIKELY ROUTE OF EXPOSURE. INHALATION OF MIST MAY BE IRRITATING TO RESPIRATORY TRACT.
Skin Contact:	NOT AN IRRITANT
Eye Contact:	CAUSES IRRITATION.
Other Information:	OTHER THAN ACUTE EFFECTS LISTED ABOVE, NO LONG TERM EFFECTS KNOWN.

SECTION 4:
FIRST AID

Ingestion:	DRINK SEVERAL GLASSES OF WATER TO DILUTE. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION.
Inhalation:	REMOVE VICTIM TO FRESH AIR. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST.
Skin Contact:	WASH WITH PLAIN WATER OR SOAP AND WATER.
Eye Contact:	IMMEDIATELY FLUSH WITH CLEAR WATER FOR 15 MINUTES AND GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
Notes to Physician:	NO ANTIDOTES KNOWN. TREAT SYMPTOMS SUPPORTIVELY.

SECTION 5:
FIRE AND EXPLOSION HAZARD DATA

Flash Point/Method:	NONE
Upper/Lower Limit in Air:	N.A./N.A.
Extinguishing Media:	WATER OR ANY MEDIA SUITABLE FOR THE SURROUNDING FIRE.
Procedures:	FIREFIGHTERS SHOULD WEAR NORMAL PROTECTIVE EQUIPMENT. SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED IN CONFINED AREAS.
Unusual Hazards:	NONE
Combustion Products:	IF WATER IS EVAPORATED, OXIDES OF CARBON AND PHOSPHORUS MAY BE PRODUCED.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Environmental Precautions: Procedures for Clean Up:	WEAR PERSONAL PROTECTIVE EQUIPMENT AS RECOMMENDED IN SECTION 8. THIS PRODUCT HAS A LOW HAZARD POTENTIAL IF RELEASED INTO THE ENVIRONMENT ACCIDENTLY. SMALL SPILLS MAY BE FLUSHED WITH COPIOUS QUANTITIES OF WATER, PREFERABLY TO A SANITARY SEWER. LARGER SPILLS MAY BE DIKED TO MINIMIZE RUN-OFF AND NEUTRALIZED WITH DILUTE ACID. LIQUID MAY BE ABSORBED IN SAWDUST OR ANY AVAILABLE ABSORBANT AND SWEEPINGS DISPOSED OF IN A LANDFILL. OBEY ALL FEDERAL, STATE OR LOCAL REGULATIONS.
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SECTION 7: HANDLING AND STORAGE

Handling: Storage:	NORMAL INDUSTRIAL HANDLING PRACTICES. KEEP OUT OF REACH OF CHILDREN. STORE IN A COOL, DRY PLACE. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE.
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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautionary Measures: Engineering Controls: Control Limits: Equipment for Personal Protection:	STANDARD INDUSTRIAL HANDLING PRECAUTIONS. WASH THOROUGHLY AFTER HANDLING CHEMICALS. USE WITH ADEQUATE VENTILATION TO KEEP EXPOSURES BELOW OCCUPATIONAL EXPOSURE LIMITS. POTASSIUM HYDROXIDE: OSHA PEL: 2 mg/m ³ Ceiling; ACGIH TLV: 2 mg/m ³ Ceiling. SODIUM MOLYBDATE - OSHA PEL: 5 mg/m ³ FOR SOLUBLE MOLBYDENUM COMPOUNDS AS Mo. SAFETY GLASSES WITH SIDE SHIELDS AND IMPERMEABLE GLOVES SHOULD BE WORN WHEN HANDLING THE CONCENTRATED PRODUCT. EYEWASH STATION AND SAFETY SHOWER IN AREA OF USE.
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Odor: pH (undiluted): Specific Gravity: Density: Solubility in Water: Boiling Point: Percent Volatile: Vapor Pressure (mmHg): Vapor Density: Evaporation Rate:	AMBER LIQUID CHARACTERISTIC <12.5 1.04 -1.06 8.8 lbs./gal. COMPLETE 212°F >70 (WATER) N.D. N.D. (water=1): ~1
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SECTION 10: STABILITY AND REACTIVITY

Stability: Conditions to Avoid: Hazardous Polymerization: Conditions to Avoid: Incompatibility: Hazardous Decomposition Products:	STABLE NONE STABLE NONE MAY REACT WITH STRONG OXIDIZING AGENTS OR ACIDS. IF WATER EVAPORATED, OXIDES OF CARBON AND PHOSPHORUS COULD BE PRODUCED BY COMBUSTION.
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SECTION 11: TOXICOLOGICAL INFORMATION

Material & Tests:	POTASSIUM HYDROXIDE: ORAL LD50 (RAT) >273 mg/kg; SODIUM MOLYBDATE: ORAL LD50 (RAT) 4000 mg/kg, INHALATION LC50 (RAT) >2080 mg/m ³ /4 Hr; PHOSPHONOCARBOXYLIC ACID, SODIUM SALT: ORAL LD50 (RAT) >5g/kg, DERMAL LD50 (RABBIT) >2g/kg; HYDROXYPHOSPHONO-ACETIC ACID, POTASSIUM SALT: ORAL LD50 (RAT) 2750 mg/kg; SODIUM TOLYLTRIAZOLE: ORAL LD50 (MALE RATS) 920 mg/kg, (FEMALE RATS) 640 mg/kg. POLYACRYLIC ACID COPOLYMER: ORAL LD50 - RAT:>5000 mg/kg, DERMAL LD50 - RABBIT:>2000 mg/kg;
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SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity:	POTASSIUM HYDROXIDE: 96 HR LC50 FATHEAD MINNOW = 179 mg/l; 48 HR EC50 WATER FLEA = 60 mg/l; 96 HR EC50 GREEN ALGAE = 61 mg/l. SODIUM MOLYBDATE: (96 Hr LC50) >79.8 mg/l; PHOSPHONOCARBOXYLIC ACID, SODIUM SALT: LC50(96 hr.) BLUEGILL > 1,000 ppm; LC50 (96 hr) RAINBOW TROUT = 1200 ppm; EC50 (48 hr) DAPHNIA MAGNA = 1800 ppm. HYDROXYPHOSPHONOACETIC ACID: RAINBOW TROUT (96 Hr LC50) 180 ppm, DAPHNIA MAGNA (48 Hr EC50) >140 ppm; SODIUM TOLYLTRIAZOLE: RAINBOW TROUT (96 Hr LC50) 23.7 ppm, BLUEGILL SUNFISH (96 Hr LC50) 191.2 ppm, DAPHNIA MAGNA (48 Hr EC50) 245 ppm. POLYACRYLIC COPOLYMER: RAINBOW TROUT, 96 HR. LC50:>1100 mg/l, DAPHNIA MAGNA, 48 HR. EC50:>1040 mg/l, ALGAE, 72 HR. EC50: 72.4 mg/l;
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SECTION 13: DISPOSAL CONSIDERATIONS

General Considerations: Procedures:	THIS PRODUCT WOULD NOT BE CONSIDERED A HAZARDOUS WASTE. DISPOSAL BY USE PREFERRED BUT IF THIS NOT POSSIBLE, DILUTE WITH COPIOUS QUANTITIES OF WATER AND FLUSH TO WASTE, PREFERABLY TO A SANITARY SEWER. OBEY ALL FEDERAL, STATE OR LOCAL REGULATIONS.
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SECTION 14: TRANSPORT INFORMATION

Shipping Name:	COMPOUNDS, WATER TREATMENT, N.O.S. (NOT REGULATED BY US DOT)
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SECTION 15: REGULATORY INFORMATION

<u>Regulation</u>	<u>Material</u>	<u>RQ</u>	<u>Max. %</u>
CERCLA (40 CFR302.4):	POTASSIUM HYDROXIDE	1000 lbs.	1
SARA 302 (Sect. 355, Appendix A):	<u>Material</u>	<u>TPQ</u>	<u>Max. %</u>
SARA 311/312:	<u>Categories</u>	<u>Hazards</u>	
	IMMEDIATE HEALTH	EYE IRRITANT	
SARA 313 (40 CFR 372.45):	<u>Material</u>	<u>Max. %</u>	
	NONE		
CWA (40 CFR 401.15):	NONE		
RCRA (40 CFR 261):	NONE		
OSHA (29 CFR 1910.1200):	ALL COMPONENTS LISTED UNDER THIS STANDARD ARE SHOWN IN SECTION 2 OF THIS MSDS.		
TSCA:	ALL INGREDIENTS IN THIS PRODUCT ARE LISTED IN THE TSCA INVENTORY.		

SPECIAL STATE REGULATIONS

STATE	INGREDIENT	%	REGULATORY DESIGNATION
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NONE			
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SECTION 16 OTHER INFORMATION

SUGGESTED HAZARD RATINGS

<u>NFPA*</u>	<u>HAZARD</u>	<u>HMIS*</u>
2	HEALTH (Blue)	2
0	FIRE (Red)	0
0	REACTIVITY (Yellow)	0
	PERSONAL PROTECTION	B
	SPECIAL HAZARDS	

*Notes: 0 = Insignificant; 1 = Slight; 2 = Moderate; 3 = High; 4 = Extreme

The data contained in this Material Safety Data Sheet has been prepared based upon an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to insure his employees are properly informed and advised of all safety precautions required. The information is furnished for compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use or dissemination of all or part of this information for any other purpose is prohibited by law.