

MATERIAL SAFETY DATA SHEET

Closed Loop Chemical 2338

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:	9/26/05
Date Revised:	5/19/09

SECTION 2:
INGREDIENTS

<u>MATERIAL</u>	<u>CAS NO.</u>	<u>%</u>
SODIUM NITRITE	7632-00-0	20 – 40
SODIUM BORATE	1303-96-4	1 – 5
SODIUM SILICATE	6834-92-0	1 – 5
SODIUM TOLYLTRIAZOLE	64665-57-2	1 – 5

SECTION 3:
HEALTH HAZARDS

Ingestion:	MAY BE TOXIC. DUE TO HIGH pH, MAY CAUSE IRRITATION TO INTERNAL TISSUES. LARGE AMOUNTS CAN RESULT IN ACUTE TOXIC EFFECTS WHICH MAY BE FATAL. NOT A LIKELY ROUTE OF EXPOSURE.
Inhalation:	INHALATION OF MISTMAY BE IRRITATING TO RESPIRATORY TRACT.
Skin Contact:	PROLONGED CONTACT MAY CAUSE IRRITATION.
Eye Contact:	CAUSES IRRITATION, POSSIBLE BURNS AND EYE DAMAGE.
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 IMMEDIATE MEDICAL ATTENTION. IF CYANOSIS (blue skin) DEVELOPS, ADMINISTER OXYGEN. REMOVE VICTIM TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST.
Inhalation:	WASH WITH PLAIN WATER OR SOAP AND WATER.
Skin Contact:	IMMEDIATELY FLUSH WITH CLEAR WATER FOR 15 MINUTES AND GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
Eye Contact:	NO ANTIDOTES KNOWN. TREAT SYMPTOMS SUPPORTIVELY.
Notes to Physician:	

SECTION 5:
FIRE AND EXPLOSION HAZARD DATA

Flash Point/Method:	NONE
Lower Limit in Air:	N.A.
Upper Limit in Air:	N.A.
Extinguishing Media:	FLOOD WITH WATER. HEAVY WATER JET ADVANTAGEOUS.
Procedures:	IF WATER IS EVAPORATED, THE DRY NITRITE CAN BREAK DOWN AT TEMPERATURES ABOVE 610°F TO RELEASE TOXIC NITROGEN OXIDE GASES. WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS.
Unusual Hazards:	IF WATER IS EVAPORATED, THE DRY NITRITE IS AN OXIDIZING AGENT AND CAN SUPPLY OXYGEN TO STIMULATE OR ACCELERATE THE COMBUSTION OF OTHER COMBUSTIBLES.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Environmental Precautions: Procedures for Clean Up: Prohibited Materials:	WEAR PERSONAL PROTECTIVE EQUIPMENT AS SPECIFIED IN SECTION 8. THIS PRODUCT HAS A MODERATE HAZARD POTENTIAL IF RELEASED INTO THE ENVIRONMENT ACCIDENTLY. SMALL SPILLS MAY BE FLUSHED WITH COPIOUS QUANTITIES OF WATER TO A SANITARY SEWER OR WASTE TREATMENT FACILITY. LARGER SPILLS SHOULD BE DIKED TO PREVENT RUN OFF AND PUMPED INTO A SUITABLE CONTAINER FOR DISPOSAL. IF ABSORBANT IS USED TO SOAK UP SPILLED PRODUCT, USE SAND OR A NON-FLAMMABLE MEDIA. NONE
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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. SODIUM BORATE: NIOSH REL = 1 MG/M3 (TWA); ACGIH TLV = 5 MG/M3 (TWA). WEAR SAFETY GLASSES OR GOGGLES, IMPERVIOUS GLOVES AND CLOTHING. 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:	CLEAR LIQUID CHARACTERISTIC <12.5 1.25-1.27 10.5 lbs./gal. COMPLETE 212°F >55 (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 NITROGEN COULD BE PRODUCED BY COMBUSTION. CONTACT WITH ACIDS CAN RELEASE TOXIC NITROGEN GASES.
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SECTION 11: TOXICOLOGICAL INFORMATION

Material & Tests: Symptoms:	SODIUM NITRITE: ORAL RAT LD50 = 180 mg/kg; INHALATION RAT LC50 = 5500 ug/m3; IRRITATION EYE RABBIT = 500 mg/24 HR = MILD. SODIUM BORATE: ORAL RAT LD50 = 2660 mg/kg. SODIUM SILICATE: ORAL LD50 RAT = 1153 mg/kg; SKIN RABBIT LD50 >4640 mg/kg; STANDARD DRAIZE TEST, SKIN RABBIT 500 mg/24 HR = SEVERE; EYE RABBIT 10 mg/24 HR = SEVERE. SODIUM TOLYLTRIAZOLE: ORAL LD50 (MALE RATS) 460 mg/kg, (FEMALE RATS) 320 mg/kg.
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SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity:	SODIUM NITRITE: 96 HR LC50 RAINBOW TROUT (JUVENILE) = 0.19 mg/l (flow-through); 24 HR NOEL = 17.1 ppm (fresh water); 48 HR TLm MOSQUITO FISH = 7.5 ppm (fresh water). SODIUM BORATE: 24 DAY LC50 RAINBOW TROUT = 776 mg/l; 7 DAY LC50 GOLDFISH = 573 mg/l; 24 HR EC50 DAPHNIA MAGNA = 2,134 mg/l. SODIUM SILICATE: 96 HR LC50 LEPOMIS MACROCHIRUS = 301-478 mg/l; 96 HR LC50 BRACHYDANIO RERIO = 3,185 mg/l (semi-static); 96 HR EC50 DAPHNIA MAGNA = 216 mg/l. 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.
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SECTION 13: DISPOSAL CONSIDERATIONS

General Considerations: Procedures:	THIS PRODUCT IS NOT A HAZARDOUS WASTE. DISPOSAL BY USE PREFERRED BUT IF THIS NOT POSSIBLE, DILUTE SMALL QUANTITIES WITH COPIOUS QUANTITIES OF WATER AND FLUSH TO WASTE, PREFERABLY TO A SANITARY SEWER. HOWEVER, 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 D.O.T.)
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SECTION 15: REGULATORY INFORMATION

<u>Regulation</u>	<u>Material</u>	<u>RQ</u>	<u>Max. %</u>
CERCLA (40 CFR302.4):	NONE		
SARA 302 (Sect. 355, Appendix A):	NONE	<u>TPQ</u>	<u>Max. %</u>
SARA 311/312:	<u>Categories</u> IMMEDIATE HEALTH		<u>Hazards</u> EYE IRRITANT
SARA 313 (40 CFR 372.45):	NONE		<u>Max. %</u>
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

<u>STATE</u>	<u>INGREDIENT</u>	<u>%</u>	<u>REGULATORY DESIGNATION</u>
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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
1	REACTIVITY (Yellow)	1
	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.