

# Material Safety Data Sheet

Hazard Rating:	NFPA	CODE TRANSLATION
Health:	2	0 = Minimal Hazard
Flammability:	0	1 = Slight Hazard
Reactivity:	1	2 = Moderate Hazard
Special:	OX	3 = Severe Hazard
		4 = Extreme Hazard

## SENTRY CN

### SECTION I: IDENTIFICATION

Effective Date: 7/1/86  
Name and Address:  
Revised: November 8, 2004  
Phone:  
Emergency Phone SENTRY: (973) 616-9000  
CHEMTREC: (800) 424-9300

Chemical Name: NITRITE BASED INHIBITOR  
Synonyms: COOLING WATER INHIBITOR  
D.O.T. Shipping Name: OXIDIZING LIQUID, N.O.S. (CONTAINS SODIUM NITRITE)  
D.O.T. Hazard Class: 5.1  
Formula: SEE SECTION II  
Chemical Family: CLOSED SYSTEM TREATMENT  
ID No.: UN-3139  
Packing Group: PG-II

### SECTION II: INGREDIENTS

A. Hazardous Ingredients	CAS NO.	%	TLV
CAUSTIC SODA (AS Na <sub>2</sub> O)	1310-73-2	<3.0	2mg/m <sup>3</sup> /15M
SODIUM NITRITE	7632-00-0	<35.0	NONE ESTAB.
B. Other Ingredients		%*	TLV
BORATE SALT		M	NONE ESTAB.
TOLYLTRIAZOLE ESTER		M	NONE ESTAB.

\*Legend: L=<1%; M=1-10%; H=>10%

### SECTION III: PHYSICAL PROPERTIES

Boiling Point: >212°F  
Percent Volatile (volume): >58  
Vapor Pressure (mm Hg): N.A.  
Vapor Density (air=1): <1  
Appearance and Odor: CLEAR PALE YELLOW LIQUID WITH PRACTICALLY NO ODOR  
Specific Gravity: 1.296-1.304  
pH (10% solution): 12.9 ± 0.3  
Solubility in Water: COMPLETE  
Evaporation Rate (water=1): 1.0

### SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (method used): NONE  
Flammable Limits in Air (lower): Not Applicable (N.A.) (upper): N.A.

Extinguishing Media: FLOOD WITH WATER. HEAVY WATER JET ADVANTAGEOUS.

Special Fire Fighting 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 Fire or Explosion 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. SEE SECTION VII.

# Material Safety Data Sheet

## SENTRY CN

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### SECTION V: HEALTH HAZARD DATA

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A. TLV and Source: NONE ESTABLISHED FOR PRODUCT. PLEASE REFER TO SECTION II.

B. Effects of a Single Overexposure by:

1. Ingestion: MAY BE TOXIC. DUE TO HIGH pH, MAY CAUSE SEVERE IRRITATION TO INTERNAL TISSUES. LARGE AMOUNTS CAN RESULT IN ACUTE TOXIC EFFECTS: NAUSEA, CONVERSION OF HEMOGLOBIN TO METHEMOGLOBIN {PRODUCING CYANOSIS (BLUE SKIN)}; A MARKED FALL IN BLOOD PRESSURE LEADING TO COLLAPSE, COMA, AND POSSIBLY DEATH.
2. Inhalation: NOT A LIKELY ROUTE OF EXPOSURE. HOWEVER, AVOID BREATHING MISTS WHICH MAY IRRITATE RESPIRATORY TRACT. LARGE AMOUNTS MAY CAUSE SYSTEMIC EFFECTS.
3. Skin Contact: PROLONGED CONTACT MAY CAUSE IRRITATION.
4. Eye Contact: CAUSES SEVERE IRRITATION OR BURNS.

C. Effects of Repeated Overexposures: OTHER THAN SHORT TERM EFFECTS, NONE KNOWN.

D. Emergency and First Aid Procedures for:

1. Ingestion: DRINK SEVERAL GLASSES OF WATER AND GET IMMEDIATE MEDICAL ATTENTION. INDUCE VOMITING BY STICKING FINGER DOWN THROAT AND CONTINUE UNTIL VOMIT IS CLEAR. IF CYANOSIS (blue skin) DEVELOPS, ADMINISTER OXYGEN.
2. Inhalation: N.A.
3. Skin Contact: WASH WITH SOAP AND WATER OR PLAIN WATER.
4. Eye Contact: IMMEDIATELY FLUSH WITH CLEAR WATER FOR 15 MINUTES AND IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

E. Other Health Information: CALCULATED ORAL LD<sub>50</sub>(RAT) BASED ON NITRITE CONTENT IS 250mg/kg.

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### SECTION VI: PERSONNEL PROTECTION DATA

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Respiratory Protection: NOT NORMALLY REQUIRED

Ventilation: NORMAL VENTILATION SATISFACTORY

Protective Gloves: OPTIONAL

Eye Protection: GOGGLES OR FACE SHIELD

Other Protective Equipment: EYEWASH STATION IN AREA OF USE.

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### SECTION VII: REACTIVITY DATA

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A. Product Stability: STABLE

Conditions to Avoid: SEE SECTION IV.

B. Incompatibility: HAZARDOUS REACTIONS CAN OCCUR WITH ACIDS, AMMONIUM COMPOUNDS, REDUCING AGENTS -PARTICULARLY CYANIDES, THIOCYANATES AND THIOSULFATES, CERTAIN COMBUSTIBLES AND ORGANICS. PRODUCT DECOMPOSES EVEN BY WEAK ACIDS WITH EVOLUTION OF BROWN FUMES OF N<sub>2</sub>O<sub>3</sub>.

# Material Safety Data Sheet

## SENTRY CN

C. Hazardous Combustion or Decomposition Products: OXIDES OF CARBON AND NITROGEN MAY BE RELEASED IF WATER IS EVAPORATED BY THE HEAT OF A FIRE. SEE SECTION IV.

D. Hazardous Polymerization: WILL NOT OCCUR  
Conditions to Avoid: NONE KNOWN

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### SECTION VIII: ENVIRONMENTAL DATA

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A. Spill or Leak Procedures: 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.

B. Waste Disposal: SMALL QUANTITIES MAY BE DILUTED WITH WATER AND FLUSHED TO A SANITARY SEWER. LARGER QUANTITIES MAY BE SUBJECT TO FEDERAL, STATE OR LOCAL REGULATIONS (EPA IGNITIBLE WASTE- D001). CONSULT APPROPRIATE REGULATING AGENCIES BEFORE DISPOSING OF WASTE MATERIAL.

C. Other Environmental Data: CALCULATED AQUATIC TOXICITY FOR THE PRODUCT APPROXIMATELY 22 ppm BASED ON SODIUM NITRITE CONTENT OF THE PRODUCT.

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### SECTION IX: SPECIAL PRECAUTIONS

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A. Handling and Storage: STORE IN A COOL DRY PLACE. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. STORE AWAY FROM ACIDS AND OTHER INCOMPATIBLE MATERIALS.

B. Other Precautions: THIS PRODUCT HAS BEEN DESIGNED FOR USE IN SPECIFIC TYPES OF COOLING AND HEATING WATER CIRCUITS AND SHOULD BE USED ONLY IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE TECHNICAL REPRESENTATIVE SERVICING THE FACILITY. IT MAY NOT BE USED FOR THE TREATMENT OF POTABLE WATERS.

The data contained in this Material Safety Data Sheet has been prepared based upon an evaluation of the ingredients contained 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 to comply with the "Occupational Safety and Health Act" (OSHA) hazard communication regulation [Rule 29 CFR 1910.1220 (g) (2)]. Use or dissemination of all or part of this information for any other purpose is not permitted.