

6219

#1751

Material Safety Data Sheet

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

FORMULA 1590

SECTION I: IDENTIFICATION

Effective Date: DECEMBER 7, 1999
 Name and Address:

Revised: September 8, 2004
 Phone: (610) 280-0450
 Emergency Phone: CHEMTREC (800) 424-9300
 Outside USA: CHEMTREC COLLECT (703) 527-3887

CONDOR TECHNOLOGIES, INC.
 602 JEFFERS CIRCLE, SUITE 111
 EXTON, PA 19341-2539

Chemical Name: ALKALINE, STABILIZED BROMINE CHLORIDE Formula: SEE SECTION II
 Synonyms: NOT APPLICABLE (N.A.) Chemical Family: WATER TREATMENT MICROBIOCIDE

D.O.T. Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
 (HALOGENATED COMPLEX, SODIUM HYDROXIDE)

D.O.T. Hazard Class: 8 ID No.: UN-3266 Packing Group: PG-III

SECTION II: INGREDIENTS

A. Hazardous Ingredients	CAS. NO.	TLV
STABILIZED LIQUID BROMINE CHLORIDE	PROPRIETARY MIXTURE	NONE ESTAB.
SODIUM HYDROXIDE	1310-73-2	2 mg/m ³ , 15 min.
B. Other Ingredients		
WATER		NONE ESTAB

SECTION III: PHYSICAL PROPERTIES

Boiling Point: 214°F-216°F Specific Gravity: 1.31-1.37
 Percent Volatile (volume): >80 pH (@ 100 gr/L): 12.4-13.7
 Vapor Pressure (mm Hg): 19mm Hg@77°F Solubility in Water: COMPLETE
 Vapor Density (air=1): N.A. Evaporation Rate (water=1): 1.0
 Appearance and Odor: CLEAR YELLOW TO CLEAR ORANGE LIQUID, MILD-SWEET ODOR.

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (method used): NONE
 Flammable Limits in Air (lower): N.A. (upper): N.A.
 Extinguishing Media: WATER FOG OR MEDIA SUITABLE FOR SURROUNDING FIRE.
 Special Fire Fighting Procedures: AVOID BREATHING FUMES. FIREFIGHTERS SHOULD WEAR PROTECTIVE EQUIPMENT INCLUDING FULL-FACED MASK SELF CONTAINED BREATHING APPARATUS WHICH PROVIDES EYE PROTECTION; ESPECIALLY FOR USE IN CONFINED AREAS.
 Unusual Fire or Explosion Hazards: WHEN HEATED, GASEOUS DECOMPOSITION PRODUCTS MAY CAUSE CONTAINERS TO RUPTURE. VIGOROUS REACTION POSSIBLE WITH ORGANIC MATERIALS OR REDUCING AGENTS AND MAY RESULT IN FIRE.

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SECTION V: HEALTH HAZARD DATA

A. TLV and Source: NONE ESTABLISHED FOR PRODUCT, SEE SECTION II.

B. Effects of a Single Overexposure by:

1. Ingestion: NOT EXPECTED TO BE ACUTELY TOXIC. DUE TO HIGH pH, MAY CAUSE SEVERE IRRITATION TO GASTROINTESTINAL TRACT.
2. Inhalation: NOT A LIKELY ROUTE OF EXPOSURE. FUMES FROM FIRES OR CHEMICAL DECOMPOSITION MAY BE TOXIC.
3. Skin Contact: CAUSES BURNS TO SKIN.
4. Eye Contact: EXPECTED TO CAUSE BURNS. MAY CAUSE IRREVERSIBLE EYE DAMAGE.

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

D. Emergency and First Aid Procedures for:

1. Ingestion: DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GIVE LARGE QUANTITIES OF MILK OR GELATIN SOLUTION. IF THESE ARE NOT AVAILABLE GIVE LARGE QUANTITIES OF WATER. IF VOMITING OCCURS SPONTANEOUSLY, KEEP AIRWAYS CLEAR AND GIVE MORE MILK, GELATIN SOLUTION, OR WATER. GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN: STABILIZED HALOGENATED COMPLEX IS AN ALKALINE CORROSIVE. DILUTE IMMEDIATELY WITH WATER.

2. Inhalation: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, HAVE A TRAINED PERSON ADMINISTER OXYGEN. IF RESPIRATION STOPS, GIVE MOUTH TO MOUTH RESUSCITATION. GET IMMEDIATE MEDICAL ATTENTION.
3. Skin Contact: FLUSH IMMEDIATELY WITH COOL PLAIN WATER, THEN WASH SKIN WITH SOAP AND WATER OR MORE PLAIN WATER. IF CLOTHING IS PENETRATED IMMEDIATELY REMOVE CLOTHING AND FLUSH THE SKIN WITH WATER. GET PROMPT MEDICAL ATTENTION.
4. Eye Contact: IMMEDIATELY FLUSH EYES WITH CLEAR COOL WATER FOR AT LEAST 15 MINUTES WHILE FORCIBLY HOLDING EYELIDS APART TO ASSURE COMPLETE IRRIGATION OF ALL EYE AND LID TISSUE. GET IMMEDIATE MEDICAL ATTENTION.

SECTION VI: PERSONNEL PROTECTION DATA

Respiratory Protection: NOT NORMALLY REQUIRED UNLESS SOLUTION IS MISTED OR HEATED. USE FULL FACEPIECE NIOSH/OSHA APPROVED ORGANIC VAPOR CANISTER IN AREA OF HIGH CONCENTRATION.

Ventilation: GENERAL ROOM VENTILATION PLUS LOCAL EXHAUST AT POINTS OF EMISSION.

Protective Gloves: IMPERVIOUS GLOVES SUCH AS RUBBER, NEOPRENE, OR VINYL.

Eye Protection: CHEMICAL SAFETY GOGGLES AND FACE SHIELD.

Other Protective Equipment: EYEWASH STATION AND SAFETY SHOWER IN AREA OF USE. IMPERVIOUS CLOTHES AND RUBBER SHOES FOR SPILLAGE.

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SECTION VII: REACTIVITY DATA

- A. Product Stability: STABLE
Conditions to Avoid: HIGH TEMPERATURES/EXTREME HEAT. CONTACT WITH INCOMPATIBLE MATERIALS.
- B. Incompatibility: AVOID CARBON STEEL, ALUMINUM, REDUCING AGENTS, ORGANICS, AND ACIDS.
- C. Hazardous Combustion or Decomposition Products: FUMES OF BROMINE AND CHLORINE.
- D. Hazardous Polymerization: NOT KNOWN TO OCCUR
Conditions to Avoid: NONE KNOWN

SECTION VIII: ENVIRONMENTAL DATA

- A. Spill or Leak Procedures: CONTAIN ANY SPILLS WITH DIKES OR ABSORBENTS TO PREVENT MIGRATION AND ENTRY INTO SEWERS OR STREAMS. TAKE UP SMALL SPILLS WITH DRY CHEMICAL ABSORBENT. FLUSHING WITH WATER IS A SAFE, ACCEPTABLE WAY TO DILUTE AND PERFORM FINAL CLEANUP. LARGE SPILLS MAY BE TAKEN UP WITH PUMP OR VACUUM AND FINISHED OFF WITH DRY CHEMICAL ABSORBENT. MAY REQUIRE EXCAVATION OF CONTAMINATED SOIL.
- B. Waste Disposal: UNDER THE CERCLA/RCRA REGULATIONS CURRENTLY IN EFFECT, THIS MATERIAL (CONTAINING CAUSTIC AND HALOGEN COMPLEX) IS REGULATED AS A HAZARDOUS WASTE OR MATERIAL. PREFERABLY, DISPOSE OF LIQUID SOLUTION IF IN ACCORDANCE WITH PRODUCT USE APPLICATIONS STATED ON PRODUCT LABEL. OTHERWISE, IT MUST BE DISPOSED OF IN A "PERMITTED" HAZARDOUS WASTE FACILITY IN COMPLIANCE WITH EPA AND/OR OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. IT SHOULD BE HANDLED IN A MANNER ACCEPTABLE TO GOOD WASTE MANAGEMENT PRACTICE. (RQ = 100 POUNDS OF CORROSIVITY).
- C. Other Environmental Data: THE ACTIVE INGREDIENT IN THIS PRODUCT PRODUCES BROMINE AND CHLORINE BASED HALOGENS IN WATER SYSTEMS WHICH CAN BE TOXIC TO FISH AND AQUATIC LIFE. THEREFORE, ALL POSSIBLE PRECAUTIONS MUST BE TAKEN TO PREVENT CONTAMINATION OF NATURAL WATERWAYS. ENVIRONMENT TOXICITY DATA STUDIES CONDUCTED ON THE PRODUCT INCLUDE:

Daphnia Magna, 48 hr. EC₅₀:.....4.8 mg whole material/L
Bluegill Sunfish, 96 hr. LC₅₀:.....3.8 mg whole material/L
Unicellular Green Alga, 96 hr. IC₅₀:.....2.6 mg whole material/L

SECTION IX: SPECIAL PRECAUTIONS

- A. Handling and Storage: STORE IN A COOL DRY PLACE (BELOW 122°F). KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. FORMULA 1590 IS AN ALKALINE OXIDIZING AGENT. MIX ONLY WITH WATER. DO NOT MIX WITH OR STORE ADJACENT TO CHEMICALS THAT MAY REACT IF SPILLAGE OCCURS. **EXAMPLE:** DO NOT MIX WITH OR STORE NEAR ACIDS, OR ORGANIC CHEMICALS.

NOTE: PRODUCT DECOMPOSITION RESULTS IN FORMATION OF GASES THAT MAY CAUSE CONTAINER TO BULGE AND POSSIBLY RUPTURE. SLOWLY VENT THE GASES TO RELEASE CONTAINER PRESSURE. WEAR SUITABLE PROTECTIVE EQUIPMENT (SECTION VI) WHEN VENTING CONTAINER.

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B. Other Precautions: THIS PRODUCT HAS BEEN DESIGNED FOR USE AS A MICROBIOCIDAL AGENT IN SPECIFIC TYPES OF COOLING WATER CIRCUITS FOR PAPERMILL SYSTEMS, AND WASTEWATER. IT MUST BE USED ONLY IN ACCORDANCE WITH THE PRODUCT LABEL AND INSTRUCTIONS PROVIDED BY THE TECHNICAL REPRESENTATIVE SERVICING THE FACILITY.

NOTE: IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

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.