



**CLEARWATER™**  
Engineered Chemistry®

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# BIO-CLEAR® 200

HEALTH	3
FLAMMABILITY	1
REACTIVITY	1
PERSONAL PROTECTION	1

24 hr. Emergency Contact (CHEMTREC) US Tel: 1- 800 - 424-9300 - Int'l. Tel. 703 - 527 - 3887

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**SUPPLIER:** CLEARWATER INTERNATIONAL L.L.C.  
515 POST OAK BLVD., SUITE 600  
HOUSTON, TX 77027

**MANUFACTURER:** CLEARWATER INTERNATIONAL L.L.C.  
100 INDUSTRIAL DRIVE  
LEETSDALE, PA 15056

**PRODUCT NAME:** BIO-CLEAR® 200

**PRODUCT CODE:** WAT5230A

**PRODUCT USE/CLASS:**

**MSDS REVISION DATE:** 06/19/06

**PREPARER:** KS

**PHONE:** 713-693-4154

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	EXPOSURE LIMITS	CAS#	% BY WEIGHT
2,2-DIBROMO-3-NITRILOPROPIONAMIDE	NONE ESTABLISHED	10222-01-2	20 %
POLYETHYLENE GLYCOL MIXTURE	NONE ESTABLISHED	25322-68-3	30-60 %

## 3. HAZARD IDENTIFICATION

**EYE:** Corrosive, contact with eyes will cause burns and permanent tissue damage.

**SKIN:** May cause skin irritation. Allergic reactions are possible. May cause skin sensitization, an allergic reaction which becomes evident on re-exposure to this material.

**INGESTION:** Single dose oral toxicity is considered to be low moderate. Swallowing small amounts are not likely to cause injury. Large amounts however may cause injury, even death.

**INHALATION:** Trace levels of cyanogens bromide and dibromoacetonitrile vapors may be present in unvented containers and may be irritating. Mist may cause irritation of upper respiratory tract.

**CHRONIC INFORMATION:** Excessive exposure may increase the blood and tissue levels of bromine.

**PRIMARY ROUTE(S) OF ENTRY:** Inhalation and Eye contact.

## 4. FIRST AID MEASURES

**EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation persists.

**SKIN CONTACT:** Wash with soap and water. Get medical attention if irritation develops or persist.

**INHALATION:** Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.



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**INGESTION:** Induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

#### 5. FIRE FIGHTING MEASURES

**FLASH POINT:** >212F  
(TAGLIABUE CLOSED CUP)

**LOWER EXPLOSIVE LIMIT:** N.A.  
**UPPER EXPLOSIVE LIMIT:** N.A.

**AUTOIGNITION TEMPERATURE:** N.D.

**EXTINGUISHING MEDIA:** Product will not support combustion. Use media suitable for surrounding materials.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** May contain toxic and irritating fumes in a fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** As in any fire, wear a self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Absorb spill with inert material (e.g. dry sand or earth), then place into a chemical waste container. (See exposure controls / personal protection section) Spilled material should be disposed of according to applicable regulations.

#### 7. HANDLING AND STORAGE

**HANDLING:** Handle all chemicals with care. Wear appropriate personnel protective equipment as outlined in section 8. Wash thoroughly after handling. Avoid contact with vapors from head space of containers. Wash thoroughly after handling.

**STORAGE:** Keep container closed when not in use. Store in a cool, dry, well ventilated place away from incompatible materials. Store below 95F/35C. Storage must be in original container. Keep container tightly closed

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Local exhaust ventilation may be necessary to control any air contaminants to within their exposure limits.

**RESPIRATORY PROTECTION:** Use a NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge when airborne concentrations are expected to exceed exposure limits. Protection by air purifying respirators is limited.

**SKIN PROTECTION:** When contact is likely wear chemical resistant gloves and boots.

**EYE PROTECTION:** Wear safety glasses with side shields or goggles.

**OTHER PROTECTIVE EQUIPMENT:** Emergency eye wash stations should be available in the work area.

**HYGIENIC PRACTICES:** Wash hands before eating. Use only with adequate ventilation. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Clear, light Yellow to Amber liquid

**ODOR:** Mild antiseptic



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**BOILING POINT (RANGE):** >120C  
**FREEZE POINT:** -50C  
**VAPOR DENSITY:** Lighter than air  
**VAPOR PRESSURE:** 2X10<sup>-5</sup> mmHg  
**PHYSICAL STATE:** Liquid  
**SOLUBILITY IN WATER:** Miscible in all proportions  
**PH (AS IS):** 1.5-5.0  
**SPECIFIC GRAVITY:** 1.250 mg/l

#### 10. STABILITY AND REACTIVITY DATA

**CONDITIONS TO AVOID:** Avoid temperature extremes (>158F).

**INCOMPATIBILITY:** Avoid contact with strong bases.

**HAZARDOUS DECOMPOSITION PRODUCTS:** may include Bromine, Cyanogen bromide, dibromoacetonitrile, or carbon dioxide.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal use and storage conditions.

**CHEMICAL STABILITY:** This product is stable under normal storage conditions.

#### 11. TOXICOLOGICAL INFORMATION

**ORAL:** The LD50 is 510 mg/kg (rat).

**DERMAL:** The LD50 for skin is >2000 mg/kg (rabbit).

**INHALATION:** The LC50 for fine dust is 1.4 mg/L (male rats).  
1.25 mg/L (female rats).

#### 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** Based on information for DBNPA, material is highly toxic to aquatic organisms on an acute basis (LC50 between 0.1 and 1.0 mg/L in most sensitive species). Based on information for tetraethylene glycol. Material is practically non-toxic to fish on an acute basis (LC 50 greater than 100 mg/L). Based on information for this product, growth inhibition EC50 for marine diatom *Skeletonema costatum* is 0.53 mg/L. Acute LC50 for marine copepod *Acartia tonsa* is 1.78 mg/L.

**CHEMICAL FATE INFORMATION:** Based on the stringent test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

#### 13. DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** Consult local, state, or federal regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers may be prohibited by federal, state, and local regulations.

**RCRA STATUS:** Not determined.

#### 14. TRANSPORTATION INFORMATION



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**(NON-BULK SHIPMENTS)**

D.O.T. PROPER SHIPPING NAME: Not Regulated  
 D.O.T. TECHNICAL NAME: Non-hazardous for D.O.T. purposes  
 D.O.T. HAZARD CLASS: N/A                      HAZARD SUBCLASS: N/A  
 D.O.T. UN NUMBER: N/A                      PACKING GROUP: N/A                      RESP. GUIDE PAGE: N/A

**(BULK SHIPMENTS)**

D.O.T. PROPER SHIPPING NAME: Not Regulated  
 D.O.T. TECHNICAL NAME: Non-hazardous for D.O.T. purposes  
 D.O.T. HAZARD CLASS: N/A                      HAZARD SUBCLASS: N/A  
 D.O.T. UN NUMBER: N/A                      PACKING GROUP: N/A                      RESP. GUIDE PAGE: N/A

T.D.G. PROPER SHIPPING NAME: Not Regulated  
 T.D.G. TECHNICAL NAME: Non-hazardous for D.O.T. purposes  
 T.D.G. HAZARD CLASS: N/A                      HAZARD SUBCLASS: N/A  
 T.D.G. UN NUMBER: N/A                      PACKING GROUP: N/A                      RESP. GUIDE PAGE: N/A

IMDG PROPER SHIPPING NAME: Not Regulated  
 IMDG TECHNICAL NAME: Non-hazardous for D.O.T. purposes  
 IMDG HAZARD CLASS: N/A                      HAZARD SUBCLASS: N/A  
 IMDG UN NUMBER: N/A                      PACKING GROUP: N/A                      EmS No.: N/A

**15. REGULATORY INFORMATION**

**CERCLA – SARA HAZARD CATEGORY:**

SECTION 311/312: This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

**IMMEDIATE HEALTH HAZARD    CHRONIC HEALTH HAZARD    FIRE HAZARD**

SARA SECTION 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

COMPONENT	CAS#	% BY WEIGHT
2, 2-Dibromo-3-Nitropropionamide	10222-01-2	20 %

**TSCA STATUS:**

All components of this product are listed on the Toxic Substance Control Act Inventory or are excluded from the listing requirements.

**INTERNATIONAL REGULATIONS:**

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings



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CANADIAN WHMIS CLASS: D1B

CANADIAN ENVIRONMENTAL PROTECTION ACT:

All components of this product are listed on the Canadian Domestic Substance List (DSL).

**16. OTHER INFORMATION**

HMIS RATING – HEALTH: 3      FLAMMABILITY: 1      REACTIVITY: 1      PERSONAL PROTECTIVE RATING: I

VERSION NUMBER: 2

REPLACES: Version 1 dated 11/15/05.

REVISION INFORMATION: Changes in section 14.

LEGEND: N.A. – NOT APPLICABLE, N.E. - NOT ESTABLISHED, N.D. – NOT DETERMINED

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US, AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.



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