

# Material Safety Data Sheet

## E M E R G E N C Y

FOR CHEMICAL EMERGENCY: SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CALL  
CHEMTREC - DAY or NIGHT - (800) 424-9300

Product Name: **AB CLEARIGATE**

### SECTION I - GENERAL INFORMATION

Manufacturer's Name: APPLIED BIOCHEMISTS  
W175 N11163 Stonewood Drive  
Suite 234  
Germantown, WI 53022-4799  
(800) 558-5106

Trade Name & Synonyms: **AB CLEARIGATE**  
Chemical Name & Synonyms: CHELATED ELEMENTAL COPPER  
Generic Description: COPPER – ALGAECIDE, HERBICIDE  
Formula: PROPRIETARY  
D.O.T. Proper Shipping Name:\* PESTICIDES, LIQUID, TOXIC, FLAMMABLE, NOS (Copper Triethanolamine)  
D.O.T. Hazard Class: 6.1, PG III  
U.N. or N.A. Identification #: UN 2903  
D.O.T. Emergency Response Guide(1996 ed.): 131  
\* Subsidiary CORROSIVE label required per 49CFR 172.402(a)(2). NFPA Class II COMBUSTABLE LIQUID  
Hazardous Mat'ls ID System Values (HMIS): Health -2 Flammability -2 Reactivity -1 Personal Protection -B  
Nat'l Fire Protection Assn. (NFPA 704M): Health -2 Flammability -2 Reactivity -1 Specific Hazard:

### SECTION II - HAZARDOUS INGREDIENTS

Hazardous Component(s)	CAS#	PEL	TLV
Copper Carbonate	12069-69-1	1 mg/m <sup>3</sup>	1.0 mg/m <sup>3</sup>
Monoethanolamine	141-43-5	3 ppm	3 ppm
Triethanolamine	102-71-6	NOT ESTABLISHED	NOT ESTABLISHED
D-Limonene	5989-27-5	NOT ESTABLISHED	NOT ESTABLISHED

Ingredients listed in this section have been determined to be hazardous as defined in 29 CFR 1910.1200. Materials determined to be health hazards are listed if they comprise 1% or more of the composition. Materials identified as carcinogens are listed if they comprise 0.1% or more of the composition. Information on proprietary materials is available as provided in 29 CFR 1910.1200 (i) (1).

### SECTION III - PHYSICAL DATA

Boiling Point (F):	212°F	Specific Gravity (water = 1):	1.0 - 1.1
Vapor Pressure (mm Hg):	NOT DETERMINED	% Volatile (by Volume):	NOT DETERMINED
Vapor Density (air = 1):	> 1	Evaporation Rate:( Ether = 1)	< 1
Melting Point (F):	N/A	pH:	9.5 - 10.0
Solubility in Water:	MISCIBLE IN WATER		
Appearance & Odor:	BLUE VISCOUS LIQUID - ORANGE ODOR.		

### SECTION IV - FIRE & EXPLOSION DATA

Flash Point :	118°F	Method:	TAG CLOSED CUP
Extinguishing Media:	CO <sub>2</sub> , H <sub>2</sub> O, DRY CHEMICAL. POLYMER FOAM FOR LARGE FIRES.		
Special Fire Fighting Procedures:	USE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS.		
Unusual Fire & Explosion Hazards:	NONE		

### SECTION V - REACTIVITY DATA

Stability -	_____ Unstable	_____ <input checked="" type="checkbox"/> Stable
Conditions to Avoid:	AVOID CONTACT WITH STRONG ACIDS AND NITRATES.	
Incompatibility (Materials to Avoid):	STRONG ACIDS AND NITRITES.	
Hazardous Decomposition Products:	OXIDES OF NITROGEN	
Hazardous Polymerization:	_____ Will Occur	_____ <input checked="" type="checkbox"/> Will Not Occur
Conditions to Avoid:	CONTACT WITH STRONG ACIDS AND NITRITES.	

**AB CLEARIGATE****SECTION VI - HEALTH HAZARD DATA**

Acute Health Hazards: LD<sub>50</sub> Rat = 1.75 g/Kg  
 Chronic Health Hazards: NONE KNOWN  
 Signs & Symptoms of Exposure: IRRITATING TO SKIN AND EYES, VAPORS OR MISTS MAY CAUSE IRRITATION WITH PAIN, COUGHING AND DISCOMFORT TO EYES, NOSE, THROAT AND CHEST.

Medical Conditions Generally Aggravated by Exposure: UNKNOWN

Chemical Listed as Carcinogen or Potential Carcinogen by:

National Toxicology Program:	Yes:	No:	✓
I.A.R.C. Monographs:	Yes:	No:	✓
O.S.H.A.	Yes:	No:	✓

Emergency & First Aid Procedures: FOR PRINCIPLE ROUTE OF ENTRY, SEE APPROPRIATE EMERGENCY PROCEDURES BELOW.  
 NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Route of Entry: Inhalation: REMOVE TO FRESH AIR. ADMINISTER OXYGEN IF NECESSARY.  
 Eyes: FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION.  
 Skin: FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.  
 Ingestion: IF INGESTED, GET IMMEDIATE MEDICAL ATTENTION.

**SECTION VII - SPILL OR LEAK PROCEDURES**

Steps to be Taken in Case Material is Released or Spilled: SOAK UP WITH APPROPRIATE ABSORBENT SUCH AS CLAY OR OTHER INERT INGREDIENT. GROUND CORN COB IS THE IDEAL ABSORBENT.  
 DO NOT FLUSH INTO SANITARY SEWERS.  
 Waste Disposal Methods: INCINERATE IN A FURNACE. MORE THAN 5 (FIVE) GALLONS, CONTACT LOCAL AUTHORITIES FOR DIRECTIONS.

**SECTION VIII - SPECIAL PROTECTION AND CONTROL MEASURES**

Respiratory Protection (Specify Type): NOT REQUIRED

Ventilation - Local Exhaust: ACCEPTABLE Special Exhaust: NOT REQUIRED  
 Mechanical Exhaust: ACCEPTABLE Other Exhaust: NOT REQUIRED

Protective Equipment - Gloves: RUBBER Eye Protection: SPLASH GOGGLES OR FACE SHIELD

Other Protective Equipment: EYEWASH AND SAFETY SHOWER SHOULD BE AVAILABLE WITHIN THE IMMEDIATE WORKING AREA.

Work or Hygienic Practices: USE SAFE CHEMICAL HANDLING PROCEDURES SUITABLE FOR THE HAZARDS PRESENTED BY THIS MATERIAL.

**SECTION IX - SPECIAL PRECAUTIONS**

Precautions to be Taken in Handling and Storage: STORE AT TEMPERATURES BETWEEN 55°F and 100°F.  
 DO NOT STORE IN DIRECT SUNLIGHT. NFPA Class II COMBUSTABLE LIQUID

Other Precautions: DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE, DISPOSAL OR CLEANING OF EQUIPMENT. STORE IN A COOL, DRY PLACE.

**KEEP OUT OF REACH OF CHILDREN**

THESE DATA ARE OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.

JHW3

Date of Last Revision: 06/09/00