

MATERIAL SAFETY DATA SHEET

MSDS

Belclene® 660

MSDS Ref. No: 2809-21-4
 Version: US/Canada
 Date Approved: 08/04/2004
 Revision No: 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Belclene® 660
PRODUCT FORMULATION NAME: Belclene® 660
GENERAL USE: Scale/deposit control additive

MANUFACTURER

Bio-Lab, Inc.
 BioLab Water Additives Division
 P.O. Box 300002
 Lawrenceville, GA 30049-1002
GENERAL INFORMATION: (800) 600-4523

EMERGENCY TELEPHONE NUMBERS:

CHEMTREC (U.S.): (800) 424-9300
CANUTEC: (613) 996-6666
EMERGENCY PHONE: (877) 800-5553 (24-Hour Medical - U.S.A.)
EMERGENCY PHONE: (303) 623-5716 (24-Hour Medical - All others)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS#</u>	<u>Wt.%</u>
1-Hydroxyethylidene-1,1-Diphosphonic Acid (HEDP)	2809-21-4	60
Water	7732-18-5	40

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

IMMEDIATE CONCERNS: Pale yellow liquid with slight odor.

POTENTIAL HEALTH EFFECTS: The product is corrosive to eyes and is expected to be severely irritating to the mucous membranes of the respiratory and gastrointestinal tracts.

4. FIRST AID MEASURES

EYES: Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a medical doctor or ophthalmologist immediately.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

NOTES TO MEDICAL DOCTOR: The product is corrosive to the eyes and is expected to be severely irritating to the mucous membranes of the respiratory and gastrointestinal tracts. Treatment is controlled removal of exposure with symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: Not applicable

FLAMMABLE LIMITS: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

EXTINGUISHING MEDIA: Not applicable (aqueous solution)

SENSITIVITY TO STATIC DISCHARGE: No data available

SENSITIVITY TO IMPACT: No data available

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Absorb onto sand or other absorbent material. Dispose of as solid waste in accordance with local regulations (e.g. incinerate). Avoid contact with skin, eyes and clothing. Prevent product from flowing into drains or water courses.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with eyes, skin, and clothing.

STORAGE: Store away from nitrites, sulphites and alkaline materials. Do not store in mild steel containers (mildly corrosive). Keep containers tightly closed when not in use and when in transit.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses or goggles

PROTECTIVE CLOTHING: PVC gloves, overalls or apron

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Slight

APPEARANCE: Pale yellow liquid

pH: Acidic < 2

VAPOR PRESSURE: 17.5 mm Hg @ 20°C (water)

VAPOR DENSITY: Not applicable

BOILING POINT: 101°C to 103°C

FREEZING POINT: -25°C

SOLUBILITY IN WATER: Soluble in water in all proportions (% by wt.)

SPECIFIC GRAVITY: (H₂O=1): 1.45 @20°C

COEFF. OIL/WATER: Log P(octanol/water) << 3 (est.)

10. STABILITY AND REACTIVITY

STABILITY: Stable

POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: None

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Corrosive (rabbit)

SKIN EFFECTS: Non-irritating (rabbit)

DERMAL LD₅₀: >7940 mg/kg (rabbit)

ORAL LD₅₀: 2400 mg/kg (rat)

INHALATION LC₅₀: No data available for the product.

ACUTE EFFECTS FROM OVEREXPOSURE: The product is corrosive to the eyes and is expected to be severely irritating to the mucous membranes of the respiratory and gastrointestinal tracts. The product is non-irritating to the skin.

CHRONIC EFFECTS FROM OVEREXPOSURE: Dogs orally dosed developed severe effects on the bone, with rib and pelvic fractures reported in many of the animals. No birth defects were noted in rats or rabbits given the product orally during pregnancy. No effects were seen on the ability of female and male rats to reproduce when given the product in their diet for two successive generations. The product produced no genetic changes in standard in vitro assays using bacterial and mammalian cells.

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: ACGIH: Not listed

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: The product has low avian toxicity, is moderately toxic to algae, slightly toxic to oysters, and is practically non-toxic to fish and invertebrates.

CHEMICAL FATE INFORMATION: This product has slow to intermediate biodegradation classification.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Absorb spillage onto sand or other absorbent material and dispose of as solid waste as per local regulations (e.g. incineration). Surplus product can be incinerated. If the product was supplied in a single use container, care should be taken to dispose of the container in a responsible manner and in accordance with applicable regulations. Label precautions should be followed for any residual material in the container. Whenever possible, our company encourages recycling of containers.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PROPER SHIPPING NAME: Corrosive liquid, acidic, organic, N.O.S. (contains 1-Hydroxyethylidene-1,1-Diphosphonic Acid)

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

UN/NA NUMBER: UN 3265

PACKING GROUP: II

PLACARDS: Corrosive

LABEL: Corrosive

OTHER SHIPPING INFORMATION: DOT Marking: Not applicable Hazardous Substance/RQ: Not applicable 49 STCC Number: Not applicable

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Corrosive liquid, N.O.S.

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

SECONDARY HAZARD CLASS/DIVISION: 9.2

UN/NA NUMBER: UN 1760

PACKING GROUP: II

SPECIAL SHIPPING NOTES: IMDG: Corrosive liquid, acidic, organic, N.O.S. (contains 1-Hydroxyethylidene-1,1-Diphosphonic Acid)

IATA: Corrosive liquid, acidic, organic, N.O.S. (contains 1-Hydroxyethylidene-1,1-Diphosphonic Acid) Keep container tightly closed. Protect against physical damage. No rail shipments of this product.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): Not listed

SECTION 311 HAZARD CATEGORY (40 CFR 370): Immediate (Acute) Health Hazard

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370): 10,000 lbs.

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372): Not listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA REGULATORY (40 CFR 302.4): Not listed

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS (40 CFR 710): Listed

STATE REGULATIONS

PROPOSITION 65: This product does not contain any substance(s) which are defined by the state of California to cause cancer, birth defects, or other reproductive effects.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Ingredient Disclosure List: Not listed Hazard Classification: Toxic, Corrosive, D.2.B, E Product Identification No.: Not available Domestic Substance List: Listed

16. OTHER INFORMATION

REVISION SUMMARY Revision #: 2 This MSDS replaces the October 12, 1999 MSDS. Any changes in information are as follows: In Section 1 MSDS Classification 24 Hour Emergency Phone Numbers

HMIS RATING

HEALTH:		3
FLAMMABILITY		1
PHYSICAL HAZARD:		0
PERSONAL PROTECTION:		J

NFPA RATING

HEALTH:		3
FLAMMABILITY		1
REACTIVITY:		0
SPECIAL:		None

Key

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal

HMIS RATINGS NOTES: Protection = J (Safety goggles, gloves, apron & combination dust & vapor respirator)

The contents and format of this MSDS are in accordance with OSHA Hazard Communication Standard and Canada's Workplace Hazardous Information System (WHMIS). National Fire Protection Association (NFPA) Hazardous Materials Identification System (HMIS)