

MATERIAL SAFETY DATA SHEET

Belclene® 500



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MSDS Ref. No: F 16-22-8
Date Approved: 02/27/2001
Version: US/Canada
Revision No: 4

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Belclene® 500
SYNONYM(s): 2-Propenoic Acid, Polymer with Sodium Phosphinate
GENERAL USE: Scale/deposit control additive

MANUFACTURER

Bio-Lab, Inc.
BioLab Water Additives Division
Post Office Box 1489
Decatur, GA 30031-1489
General Information: (800) 600-4523

Emergency Telephone Numbers:

CHEMTREC (U.S.): (800) 424-9300

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>
2-Propenoic Acid, Polymer with Sodium Phosphinate	71050-62-9	35
Water	7732-18-5	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS:

Burning of this product will generate toxic decomposition products, including carbon monoxide, carbon dioxide and phosphorous oxides.

POTENTIAL HEALTH EFFECTS:

Liquid will irritate eyes and skin. Mist may cause irritation of eyes, nose, throat and lungs.

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.

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INGESTION:

Drink plenty of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

INHALATION:

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

NOTES TO MEDICAL DOCTOR:

Product may be irritating to the eyes and skin. Mist may cause irritation of eyes, nose, throat and lungs. Treatment is removal of exposure followed by symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: Not applicable
FLAMMABLE LIMITS: Not applicable
AUTOIGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA:
Not applicable

FIRE / EXPLOSION HAZARDS:
Decomposition and combustion products may be toxic.

FIRE FIGHTING PROCEDURES:
Use self-contained breathing apparatus.

SENSITIVITY TO STATIC DISCHARGE:
Not available

SENSITIVITY TO IMPACT:
Not available

HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition and burning may produce carbon monoxide, carbon dioxide and phosphorous oxides.

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES:

Isolate area. Wear prescribed protective clothing and equipment. Dike to confine spill. Absorb with an absorbant. Shovel waste into an approved container and dispose of following the method outlined under the "Disposal Considerations" section. To decontaminate spill area, tools and equipment, wash with water and add to drums of waste already collected.

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7. HANDLING AND STORAGE

HANDLING:

Use chemical goggles, impervious gloves and aprons if direct contact is anticipated.

STORAGE:

Keep container tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Control excessive direct contact with the product using the personal protective equipment indicated below. Use with general room ventilation or local exhaust when airborne contamination is expected.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE:

Use chemical-type goggles or face shield.

RESPIRATORY:

Use MSHA/NIOSH approved dust/mist respiratory protection when airborne mist is expected.

PROTECTIVE CLOTHING:

Use impervious gloves. Wear impervious apron and gauntlets when splashing is expected during liquid transfers. Wear normal workshoes except in conditions of spills where rubber overshoes or boots would be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Slight

APPEARANCE: Light, yellow liquid

pH: 2 to 3

PERCENT VOLATILE: Not available

VAPOR PRESSURE: 24 mmHg @ 25°C (water)

VAPOR DENSITY: (Air = 1): 0.020 @ 25°C

BOILING POINT: 101°C

FREEZING POINT: 0°C to -10°C

SOLUBILITY IN WATER: Miscible (% by wt.)

EVAPORATION RATE: (Butyl Acetate = 1): Equivalent to water

DENSITY: Not available

SPECIFIC GRAVITY: (H₂O=1): 1.17

COEFF. OIL/WATER: Not available

ODOR THRESHOLD: Not available

OXIDIZING PROPERTIES: Not available

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10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:

Alkaline materials, acid reactive salts such as nitrites and sulphites.

STABILITY:

Stable

POLYMERIZATION:

Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition and burning may produce carbon monoxide, carbon dioxide and phosphorus oxide.

INCOMPATIBLE MATERIALS:

Alkaline materials, acid reactive salts such as nitrites and sulphites, mild steel.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:

Non-irritant (rabbit)

SKIN EFFECTS:

Non-irritant (rabbit)

Non-sensitizer (guinea pig)

DERMAL LD₅₀: No data available for the product.

ORAL LD₅₀: >5000 mg/kg (rat) (practically non-toxic)

INHALATION LC₅₀: No data available for the product.

ACUTE EFFECTS FROM OVEREXPOSURE:

Product may be irritating to eyes and skin. Mist may cause irritation of eyes, nose, throat and lungs.

CHRONIC EFFECTS FROM OVEREXPOSURE:

A 90-day feeding study in rats with a similar product indicated bone damage and kidney effects.

CARCINOGENICITY:

IARC:

Not listed

NTP:

Not listed

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OSHA:
Not listed

OTHER:
ACGIH: Not listed

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

Fish Toxicity:

Rainbow trout: 96 hour LC50 > 100 ppm (based on active ingredient)
[Study Numbers: I92-1378, I92-1979]

Invertebrate Toxicity:

Daphnia magna: 24 hour EC50 > 1000 ppm (based on active ingredient)
[Study Numbers: I92-1377, I92-1987]

Algal Toxicity:

Selenastrum capricornutum: 72 hour EC50 = 51 ppm (based on active ingredient)
[Study Numbers: I92-1417, I92-1987]

CHEMICAL FATE INFORMATION:

Effluent Data:

Aerobic Sewage Treatment Coupled Units Test 303A:
Elimination rate of 7.7%; not inherently biodegradable
[Study Numbers: I92-1419, I92-1983]

Sewage Bacterial Toxicity:

Inhibitory effect on respiration of aerobic wastewater bacteria: IC20, IC50, IC80 > 100 mg/L
[Study Numbers: I92-1416, I92-1489]

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Open dumping or burning of this material is prohibited. An acceptable method of disposal is to burn in an incinerator in accordance with all local, state and federal environmental laws, rules, standards and regulations. The appropriate regulatory agencies should be contacted prior to disposal.

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.

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14. TRANSPORT INFORMATION

U.S. DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Corrosive liquid, acidic, organic, N.O.S. (contains acrylic acid, polymer with sodium phosphinate)

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

UN/NA NUMBER: UN 3265

PACKING GROUP: III

PLACARDS: Corrosive

LABEL: Corrosive

OTHER SHIPPING INFORMATION:

DOT Marking: Corrosive liquid, acidic, organic, N.O.S. (contains acrylic acid, polymer with sodium phosphinate) UN 3265

Hazardous Substance/RQ: Not applicable

49 STCC Number: No rail shipments of this product

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Corrosive liquid, N.O.S. (contains acrylic acid, polymer with sodium phosphinate)

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

SECONDARY HAZARD CLASS/DIVISION: 9.2

UN/NA NUMBER: UN 1760

PACKING GROUP: III

SPECIAL SHIPPING NOTES:

IMDG: Corrosive liquid, acidic, organic, N.O.S. (contains acrylic acid, polymer with sodium phosphinate)

IATA: Corrosive liquid, acidic, organic, N.O.S. (contains acrylic acid, polymer with sodium phosphinate)

Keep container tightly closed. Protect against physical damage.

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): Not applicable

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370): Not applicable

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

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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):

Product Identification No.: Unknown

Hazard Classification: Unknown

Ingredient Disclosure List: Not listed

Domestic Substance List: Listed

16. OTHER INFORMATION

REVISION SUMMARY

Revision #: 4

This MSDS replaces the March 07, 2000 MSDS. Any changes in information are as follows:

HMIS RATING

HEALTH:	1
FLAMMABILITY	1
REACTIVITY:	0
PROTECTION:	J

Key

4 = Severe

3 = Serious

2 = Moderate

1 = Slight

0 = Minimal

HMIS RATINGS NOTES:

Health = 1 (chronic effects)

Protection = J (Safety goggles, gloves, apron & combination dust & vapor respirator)

NFPA RATING

FLAMMABILITY



[multi][osha-whmis][nfpa][16-hmis]