

MATERIAL SAFETY DATA SHEET

MSDS

Bellacide® 355

Date Issued: 03/15/2007
MSDS Ref.: No.:00110723
Date-Revised: N/A
Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Bellacide® 355
GENERAL USE: Industrial Water Treatment
EPA REGISTRATION NUMBER: 83451-16

MANUFACTURED FOR:

BWA Water Additives US LLC
 1979 Lakeside Parkway, Suite 925
 Tucker, GA 30084

GENERAL INFORMATION: (800) 600-4523

SUPPLIER

See Manufacturer for Supplier Information

24 HR. EMERGENCY TELEPHONE NUMBERS

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>
Tributyl tetradecyl phosphonium chloride	81741-28-8	5
Water	7732-18-5	

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

IMMEDIATE CONCERNS: Corrosive. Causes skin and eye damage. Do not get in eyes, on skin or on clothing. May be irritating to nose and throat. Wear goggles or safety glasses and rubber gloves when handling this product. In fire conditions toxic decomposition products may be released.

POTENTIAL HEALTH EFFECTS: Liquid is corrosive to skin and eyes and may cause permanent eye damage, including blindness. Mist may cause irritation of eyes, nose, throat and lungs. Avoid contact with skin, eyes or clothing.

4. FIRST AID MEASURES

EYES: Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Seek medical attention.

SKIN: Remove contaminated clothing. Rinse immediately with plenty of water for at least 15 minutes. If irritation occurs or persists, seek medical attention.

INGESTION: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

INHALATION: If inhaled: Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call poison control center or doctor for treatment advice.

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES**FLASH POINT AND METHOD:** Not Established**AUTOIGNITION TEMPERATURE:** Not Established**EXTINGUISHING MEDIA:** Carbon dioxide, foam, dry chemical, water spray**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, phosphorus oxides and chlorine compounds.**6. ACCIDENTAL RELEASE MEASURES****ENVIRONMENTAL PRECAUTIONS****WATER SPILL:** Ensure spilled product does not enter drains or water ways.**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.**7. HANDLING AND STORAGE****GENERAL PROCEDURES:** Avoid contact with eyes, skin or clothing and inhalation of vapors and/or sprays.**HANDLING:** Keep container closed when not in use or in transit.**STORAGE:** Store at room temperature. Keep containers closed when not in use. Protect containers from physical damage. Store away from food, drink or animal feed.**COMMENTS: VENTILATION:** Use with general room ventilation or local exhaust when airborne contamination is expected.**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<u>Chemical Name</u>	EXPOSURE LIMITS			
	TWA (ACGIH)	STEL/Ceiling (ACGIH)	PEL (OSHA)	STEL/Ceiling (OSHA)
Tributyl tetradecyl phosphonium chloride	Not established	Not established	Not established	Not established

ENGINEERING CONTROLS: General room ventilation and/or local exhaust should be used to minimize exposure to vapors.**PERSONAL PROTECTIVE EQUIPMENT****EYES AND FACE:** Safety glasses or goggles**SKIN:** In applications where contact is likely, wear PVC gloves with overalls or apron.**RESPIRATORY:** Use MSHA/NIOSH approved dust/mist respiratory protection when airborne mist is expected.**PROTECTIVE CLOTHING:** 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.**WORK HYGIENIC PRACTICES:** Wash hands thoroughly with soap and water after handling product. Remove and wash

contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
ODOR: Slight
APPEARANCE: Clear, colorless liquid
pH: 6 to 8
PERCENT VOLATILE: Not available
VAPOR PRESSURE: Not Established
VAPOR DENSITY: Not Established
BOILING POINT: 100°C
FREEZING POINT: -8°C to -10°C
SOLUBILITY IN WATER: Miscible @ 25°C
SPECIFIC GRAVITY: Not available
VISCOSITY: Not available
COEFF. OIL/WATER: Log P(octanol/water) << 3 (est.)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Not available

STABILITY: Stable

POLYMERIZATION: Will not occur

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

INCOMPATIBLE MATERIALS: Not available

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Corrosive (rabbit)

SKIN EFFECTS: Corrosive (rabbit)

DERMAL LD50: >2000 mg/kg (rabbit)

ORAL LD50: >2000 mg/kg (rat)

INHALATION LC50: 0.9 mg/L

ACUTE EFFECTS FROM OVEREXPOSURE: Liquid is corrosive to skin and eyes and may cause permanent eye damage, including blindness. Mist may cause irritation of eyes, nose, throat and lungs.

CHRONIC EFFECTS FROM OVEREXPOSURE: In animal studies, ingestion caused damage to the gastrointestinal tract. Product was not genotoxic or teratogenic in standard tests. Skin conditions may be aggravated by exposure.

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: ACGIH: Not listed

MUTAGENICITY: No evidence of induction of DNA damage.

CARCINOGENICITY

<u>Chemical Name</u>	<u>NTP Status</u>	<u>IARC Status</u>	<u>OSHA Status</u>	<u>Other</u>
Tributyl tetradecyl phosphonium chloride	Not listed	Not listed	Not listed	

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Fish Toxicity: Bluegill: 96 hour LC50 = 0.58mg/l (as calculated from a related product). Invertebrate Toxicity: Daphnia magna: 48 hour EC50 = 0.25 mg/l (as calculated from a related product).

CHEMICAL FATE INFORMATION: This product is toxic to fish and aquatic invertebrates. Effluent data - BOD: Inhibitory effect on aerobic waste water bacteria IC50 = 16.2 ppm (active ingredient)

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. Because acceptable methods of disposal may vary by location and regulatory requirements may change, 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.

14. TRANSPORT INFORMATION**U.S. DEPARTMENT OF TRANSPORTATION (DOT)**

PROPER SHIPPING NAME: Corrosive liquid, N.O.S. (contains Tributyl tetradecyl phosphonium chloride)

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

UN/NA NUMBER: UN 1760

PACKING GROUP: II

PLACARDS: Corrosive

LABEL: Corrosive

OTHER SHIPPING INFORMATION: DOT Marking: Corrosive liquid, N.O.S. (contains Tributyl tetradecyl phosphonium chloride) UN1760 Hazardous Substance/RQ: Not applicable 49 STCC Number: Not applicable; not shipped via railcar

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Corrosive liquid, N.O.S. (contains Tributyl tetradecyl phosphonium chloride)

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

SECONDARY HAZARD CLASS/DIVISION: 9.2

PACKING GROUP: II

SPECIAL SHIPPING NOTES: IMDG: Corrosive liquid, N.O.S. (contains Tributyl tetradecyl phosphonium chloride) IATA: Corrosive liquid, N.O.S. (contains Tributyl tetradecyl phosphonium chloride) 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): Acute (immediate) health hazard

FIRE: NO PRESSURE GENERATING: NO REACTIVITY: NO ACUTE: YES CHRONIC: NO

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): Not 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.

WHMIS CLASS: E - Corrosive Material

CANADA INGREDIENT DISCLOSURE LIST: Not Listed

DOMESTIC SUBSTANCE LIST (INVENTORY): Not listed (transitional chemical)

16. OTHER INFORMATION

REVISION SUMMARY New MSDS: This MSDS is a replacement for the May 20, 2004 BioLab Inc. MSDS for Bellacide 355 (MSDS Ref.No.:BC355). Any changes in information is as follows: In MSDS Identifying Header - BWA Corporate Logo, MSDS Ref. No. In section[1] Product and Company Information - Manufactured For: BWA Address, Customer Service Number, EPA Registration Number - In section[4] First Aid - Ingestion, Inhalation, Note to physician - In section [7] Handling and Storage - General Procedures - In section [8] Exposure Control/ Personal Protection, Protective Clothing -In section [9] – Viscosity - In section [11] Toxicological Information - Mutagenicity - In section [12] Ecotoxicological Data refined.

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)

COMMENTS: 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)

MANUFACTURER DISCLAIMER: IMPORTANT: The information is given without a warranty or guarantee. No suggestions for use are intended or shall be construed as a recommendation to infringe any existing patents or violate any federal, provincial, state, municipal, or local laws. Safe handling and use is the responsibility of the customer. Read the label before using this product. This information is true and accurate to the best of our knowledge.