

# Material Safety Data Sheet

MICROBAN® ADDITIVE LB3

Date: May 16, 2005

## 1. PRODUCT IDENTIFICATION

**PRODUCT NAME:** Microban Additive LB3  
**PRODUCT NUMBER:** R60100-978  
**USE:** Protection of products from microbial decay.  
**GENERIC DESCRIPTION:** Antimicrobial product

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS NO	INGREDIENT	PERCENT	EXPOSURE LIMITS		
			ACGIH TWA	STEL	OSHA PEL
4299-07-4	N-Butyl-1,2- Benzisothiazolin-3-one	94.5	None	None	None

## 3. HAZARD IDENTIFICATION

**HMIS Hazard Classification:**  
**Health:** 3  
**Flammability:** 1  
**Reactivity:** 0

**NFPA Hazard Classification:**  
**Health:** 3  
**Flammability:** 1  
**Reactivity:** 0

**ROUTE(S) OF ENTRY:** Inhalation, eye and dermal contact, ingestion

**POTENTIAL HEALTH EFFECTS:** Corrosive to eyes, skin and mucous membranes. Skin sensitizer.

### **Risk and Safety Phrases**

R Phrases: R41-40/21-43. Risk of serious damage to eyes. Harmful; possible risk of irreversible effects in contact with skin. May cause sensitization by skin contact.

S Phrases: S26-37/39-61. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. Avoid release to the environment. Refer to special instruction/safety data sheets.

Symbols: Xn (Harmful) C (Corrosive) N (Dangerous for the environment)

## 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with running water for at least 15 minutes. Get medical attention.

**SKIN:** Wash with mild soap and water. If irritation occurs, get medical attention. If clothing is contaminated, remove and wash before reuse.

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**INGESTION:** DO NOT INDUCE VOMITING. Rinse mouth with water. Dilute stomach contents by slowly giving one or two glasses of water. If unconscious, do not give anything to drink. Get immediate medical attention.

**INHALATION:** Remove to fresh air. Get medical attention.

**NOTE TO PHYSICIAN:** Mucosal injury following ingestion of this potentially corrosive material contraindicates the induction of vomiting.

## **5. FIRE AND EXPLOSION HAZARDS**

### **FLAMMABLE LIMITS**

<b>FLASH POINT:</b>	352 F (178 C)
<b>FLAMMABLE LIMITS IN AIR-LOWER:</b>	Not available
<b>FLAMMABLE LIMITS IN AIR-UPPER:</b>	Not available
<b>AUTO-IGNITION TEMPERATURE:</b>	797 F (425 C)

**GENERAL HAZARDS:** None known.

**FIRE FIGHTING EXTINGUISHING MEDIA:** Carbon dioxide, water fog, foam, dry chemical.

**FIRE FIGHTING EQUIPMENT:** Firefighters should wear self-contained (NIOSH approved) breathing apparatus with full face shield and protective clothing when fighting fires involving chemicals.

**FIRE AND EXPLOSION HAZARDS:** None. Minimize formation or generation of mists.

**HAZARDOUS COMBUSTION PRODUCTS:** Decomposition and combustion products may be toxic. Thermal decomposition and burning may product oxides of carbon, nitrogen and sulfur.

**EMERGENCY RESPONSE GUIDEBOOK INFORMATION:** None

## **6. ACCIDENTAL RELEASE MEASURES**

**ACCIDENTAL RELEASE MEASURES:** Wear skin and eye protection during cleanup. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

**WATER SPILL:** Prevent material from entering sewers, waterways, or low areas. There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. This material is harmful to aquatic organisms. Releases to natural waters should be reported to appropriate water pollution control authorities. Releases of untreated effluent to the sewer should be immediately reported to the public treatment works.

## **7. HANDLING AND STORAGE**

Do not take internally. Avoid contact with skin, eyes and clothing. Wear protective eyewear and rubber gloves. Upon contact with skin or eyes, wash off with water.

Minimize formation or generation of mists.

Do not store near feed, food or within reach of children. Protect from frost. If frozen, allow to thaw and stir well before use. Store in a cool area with good ventilation.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**PERSONAL PROTECTIVE EQUIPMENT:** Wear appropriate equipment to prevent probability of exposure and personal

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contact. Deluge safety shower and eye wash should be located near work area. Take all precautions to avoid skin contact.

**EYE PROTECTION:** Wear side-shield safety glasses, chemical goggles or face shield.

**SKIN PROTECTION:** Use chemical resistant gloves, arm covers and apron. Additional protection such as a full body suit and boots may be required depending upon conditions. Remove contaminated clothing and wash before reusing.

**RESPIRATORY PROTECTION:** If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Type: NIOSH certified respirator for organic vapors, mists and fumes.. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998.

**ENGINEERING CONTROLS:** Good general ventilation, typically 10 air changes per hour. Local exhaust recommended, mechanical exhaust acceptable.

**EMERGENCY RESPONSE PROTECTION:** No additional specialized equipment should be required.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>PHYSICAL FORM:</b>	Liquid
<b>COLOR:</b>	Brown oily
<b>ODOR:</b>	None
<b>ODOR THRESHOLD:</b>	Not available
<b>BOILING POINT:</b>	Decomposes before boiling
<b>MELTING POINT:</b>	Not applicable
<b>FREEZING POINT:</b>	Not available
<b>BULK DENSITY:</b>	Not available
<b>pH:</b>	< 2.80 (1% solution)
<b>SOLUBILITY IN WATER:</b>	< 0.0005 g/L
<b>DECOMPOSITION TEMPERATURE:</b>	Not available
<b>SPECIFIC GRAVITY:</b>	Not available
<b>EVAPORATION RATE:</b>	Not available
<b>VAPOR PRESSURE:</b>	0.0150 Pa @ 25C
<b>VAPOR DENSITY:</b>	Not available

## **10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**INCOMPATIBILITY:** Strong acids, oxidizing agents, alkaline materials.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION:** Decomposition and combustion products may be toxic. Thermal decomposition and burning may product oxides of carbon, nitrogen and sulfur.

## **11. TOXICOLOGICAL INFORMATION**

**Oral Toxicity:** Rats – between 500 and 5000 mg/kg

**Dermal Toxicity:** Rabbits – greater than 1000 mg/kg

**Eye Irritation:** Corrosive

**Skin Irritation:** Corrosive

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**Sensitization:** Dermal sensitizer.

**CHRONIC EFFECTS:** Rats fed 150 mg/kg/day for 90 days had decreased food consumption, decreased body weight, increased liver weight, and lesions in the stomach tissue. Rats fed 15 mg/kg/day showed no effects.

## **12. ECOLOGICAL INFORMATION**

<b>Test</b>	<b>Species</b>	<b>Result</b>
96 Hr LC50	Bluegill sunfish	0.540 mg/L
	Rainbow trout	0.150 mg/L
48 Hr EC50	Daphnia magna	0.093 mg/L
72 Hr EC50	Green algae	0.240 mg/L (NOEC = 0.099 mg/L)

## **13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** Incinerate in a furnace where permitted under appropriate federal, state and local regulation.

**CONTAINER DISPOSAL INFORMATION:** Emptied container may contain product residue and should not be reused.

**RCRA HAZARD CLASS:** Refer to Section 15: Regulatory Information for RCRA status.

## **14. TRANSPORT INFORMATION**

**DOT:** Shipping name: Corrosive Liquid, n.o.s. (contains N-Butyl-1,2-Benzisothiazolin-3-one)  
Hazard class: 8.0  
UN Number: UN 1760  
Packing group: III  
Special provisions: Marine pollutant : Bulk (DOT); all packagings IMO

## **15. REGULATORY INFORMATION**

**TSCA Section 8b:** All components are either exempt or listed in TSCA inventory.

**SARA 302 Extremely Hazardous Substance(s):** None

**SARA 313 Health Hazard:** Immediate, delayed health hazard.

**CERCLA:** None of the components of this product are specifically listed as hazardous substances in 40 CFR 302.4 (unlisted hazardous substances are not identified) and are present at levels which could require reporting.

**Clean Water Act - Priority Pollutants:** Does not contain any priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1) Priority Pollutant List (40 CFR 401.15).

**RCRA:** Not a hazardous waste under RCRA (40 CFR 261.21).

**CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986):** This product may contain materials known to the State of California to cause cancer.

**Risk and Safety Phrases**

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**Additional Information:** None

## **16. OTHER INFORMATION**

*The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This material safety data sheet was prepared to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and with the Workplace Hazardous Materials Information System (WHMIS).*

*This supersedes any previous information.*