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InfoTrac Chemical Monitoring System

Material Safety Data Sheet

Microban® Additive B

Date: April 6, 2005

1. PRODUCT IDENTIFICATION

PRODUCT NAME: Microban® Additive B
PRODUCT NUMBER: R10000-999
USE: For treatment of manufactured products
GENERIC DESCRIPTION: Antimicrobial product

2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS NO	INGREDIENT	PERCENT	EXPOSURE LIMITS		
			ACGIH	OSHA	
			TWA	STEL	PEL
3380-34-5	Microban® Additive B	100	None	None	None

3. HAZARD IDENTIFICATION

HMIS Hazard Classification:		NFPA Hazard Classification:	
Health: 2		Health: 2	
Flammability: 1		Flammability: 1	
Reactivity: 0		Reactivity: 0	

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

POTENTIAL HEALTH EFFECTS: May cause eye and skin irritation. May irritate respiratory tract. Animal studies show the liver and kidneys to be target organs. Very toxic to aquatic organisms.

Risk and Safety Phrases

R Phases: R36/37/38. Irritating to eyes, respiratory tract and skin.
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: Xi(Irritant) 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.

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.

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5. FIRE AND EXPLOSION HAZARDS

FLAMMABLE LIMITS

FLASH POINT:	433fflF (223fflC)
FLAMMABLE LIMITS IN AIR-LOWER:	Not available
FLAMMABLE LIMITS IN AIR-UPPER:	Not available
AUTO-IGNITION TEMPERATURE:	Not available

GENERAL HAZARDS: None known.

FIRE FIGHTING EXTINGUISHING MEDIA: Carbon dioxide, water fog, foam

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 dusts.

HAZARDOUS COMBUSTION PRODUCTS: Decomposition and combustion products may be toxic. Thermal decomposition and burning may produce oxides of carbon and nitrogen, hydrogen chloride and chlorine.

EMERGENCY RESPONSE GUIDEBOOK INFORMATION: None

6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Wear eye and skin protection. 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.

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 dusts.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT: Wear appropriate equipment to prevent probability of exposure and personal contact. Deluge safety shower and eye wash should be located near work area.

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

SKIN PROTECTION: wear appropriate gloves as a standard handling procedure. Chemical apron and/or protective clothing is recommended if splashing may occur.

RESPIRATORY PROTECTION: if engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Type: dust/mist. 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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	Solid powder
COLOR:	White
ODOR:	Mild characteristic
ODOR THRESHOLD:	Not available
BOILING POINT:	Not determined
MELTING POINT:	56-58fflC (132-136fflC)
FREEZING POINT:	Not applicable
BULK DENSITY:	Not available
pH:	Not applicable
SOLUBILITY IN WATER:	0.01 g/L @ 20fflC (68fflF)
DECOMPOSITION TEMPERATURE:	>280fflC (536fflF)
SPECIFIC GRAVITY:	Approximately 1.12
EVAPORATION RATE:	Not determined
VAPOR PRESSURE:	7 x 10(-4) Pa
VAPOR DENSITY:	Not determined

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Strong acids, strong bases, oxidizing and reducing agents

HAZARDOUS POLYMERIZATIONS: Will not occur.

HAZARDOUS DECOMPOSITION: Decomposition and combustion products may be toxic. Thermal decomposition and burning may produce oxides of carbon and nitrogen, hydrogen chloride and chlorine.

11. TOXICOLOGICAL INFORMATION

Oral Toxicity: Rats >5000 mg/kg

Dermal Toxicity: Rabbits > 2000 mg/kg

Eye Irritation: Irritant

Skin Irritation: Irritant

Sensitization: Not a dermal sensitizer.

TERATOLOGY: Teratology studies in rats showed a maternal and fetal no effect level = 50 mg/kg/day. Studies in rabbits showed a maternal no effect level – 50 mg/kg/day and a fetal no effect level = 150 mg/kg/day.

REPRODUCTIVE EFFECTS: Fertility and reproduction over two generations is not affected at the highest dose tested, 150 mg/kg/day.

SUBCHRONIC EFFECTS: The no effect level for dermal effects was 10 mg/kg/day. The no effect level for ingestion studies ranged from 25 mg/kg/day in dogs and mice up to 100mg/kg/day in rats.

MUTAGENICITY: No evidence of mutagenic effects.

CHRONIC EFFECTS: Chronic testing in animals on the active ingredient showed the liver and kidney to be the target organs. Carcinogenicity studies in rats and hamsters did not reveal any neoplastic effects. A carcinogenicity study in mice showed evidence of liver tumors.

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12. ECOLOGICAL INFORMATION

Test	Species	Result
96 Hr LC50	Bluegill sunfish	840 ug/L (NOEC 56 ul/L)
	Rainbow trout	350 ug/L
48 Hr EC50	Daphnia magna	390 ug/L (NOEC 100 ug/L)
72 Hr EC50	Green algae	0.46 ul/L (NOEC)

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: Not regulated in this packaging size and mode of transport. Regulated in Bulk Quantities Only. Single packages greater than or equal to 880 lbs or 119 gallons are regulated. Refer to IMDG for bulk shipment information.

IATA: Not regulated in this packaging size and mode of transport. Regulated in Bulk Quantities Only. Single packages greater than or equal to 880 lbs or 119 gallons are regulated. Refer to IMDG for bulk shipment information.

IMDG: Shipping name: Environmentally hazardous substance, solid, n.o.s. (contains triclosan, marine pollutant)

Hazard class: 9 UN number: UN 3077 Packing group: III

Note: DOT section 171.4 – Marine Pollutants: (c) Exceptions: Except when transported aboard vessel, the requirements specific to marine pollutants do not apply to non-bulk packaging transported by motor vehicles, rail cars or aircraft.

15. REGULATORY INFORMATION

EPA FIFRA: EPA registered antimicrobial – EPA Registration No: 42182-1

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

SARA 302 Extremely Hazardous Substance(s): None

SARA 311/312 Health Hazard: Immediate, delayed health hazard.

SARA 313 Toxic Chemical List: None

CERCLA: The following 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:

Component	CAS #	Amount
None		

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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).

Clean Air Act – Hazardous Air Pollutants: Does not contain any hazardous air pollutants under U.S. Clean Air Act Section 12 (40 CFR 61).

Clean Air Act – Ozone Depleting Substances: This product neither contains or was manufactured with a Class I or a Class II ozone depleting substance as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A+B).

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 contains the following chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm:

Component	CAS #	Amount
None		

International Regulations: Canada

Canada CEPA: All components are listed on the Canadian DSL.

Canada WHMIS: This product does not contain any chemicals listed on the Canadian WHMIS Ingredient Disclosure List. Controlled product, Class D2B.

International Regulations: EEC

EC-Number: 222-182-2

Symbol(s): Xi – Irritant N – Dangerous for the environment

R-Phrase(s) R36/37/38 irritating to eyes respiratory tract and skin

R50/53 very toxic to aquatic organisms, may cause long term affects in the aquatic environment

S-Phrase(s) S26 in case of contact with eyes, rinse immediately with water and seek medical advice

S37/38 wear suitable gloves and eye/face protection

S61 avoid release to the environment. Refer to special instructions/safety data sheets

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 supercedes any previous information.