

# MATERIAL SAFETY DATA SHEET

## MRT-2 000

(ISO 11014-1 / ANSI Z 400.1-1998 / 93/112/EC)

First Issued: June 6<sup>th</sup> , 2003

Prepared By: The Company Health and Risk Assessment Unit, PO Box 17893, Austin, TX 78760-7893.

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Company Name:** Biological Systems, Inc.  
**Company Mailing Address:** 445 TX 36. PO BOX D  
Rosenberg, Texas 77471  
**EMERGENCY PHONE NO.:** CHEM-TEL 800.255.3924  
**Other Applicable No.:** 800.829.3020, Mobile: 817.903.4511  
**Common Name, Chemical Name or Trade Name:** MRT-2000

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:** Proprietary mixture of surfactant; fatty acids not otherwise specified selected bacterial cultures and water.

No constituents are hazardous as defined in 29 CFR 1910.1200

### 3. HAZARDS IDENTIFICATION

#### 3.1 Emergency Overview

MRT-2000 is a viscous, green colored liquid soap with a neutral chemical odor. Product is stable at normal temperatures. There are no known OSHA threshold limit values. May cause mild skin irritation as can any soap but skin irritation is not expected to be a problem. Product should not be elevated to temperatures above 150°F (65°C). Product should not be exposed to strong oxidizing agents.

#### 3.2 Potential Health Effects

**Routes of Exposure:** Skin, eyes and Inhalation

**Threshold Limit Values:** None established by OSHA

**Routes of Contact- Eyes:** May cause mild irritation. Keep product away from children.

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**Routes of Contact- Skin:** Skin exposure not anticipated to be a problem. May produce drying upon prolonged contact. Keep product away from children.

**Routes of Contact- Inhalation:** Mists may produce irritation to mucous membranes.

**Routes of Contact- Ingestion:** Irritation to G.I. tract mucous membranes.

**Signs and Symptoms:** Acute Over Exposure: Slight irritation to eyes or skin.

**Chronic Over Exposure:** No data available. Not considered a problem.

**Medical Conditions Aggravated by Exposure:** None known.

**Chemical Listed as Possible Carcinogen:** National Toxicity Program: No  
I. A. R. C. Monographs: No  
OSHA Regulated: No

### 3.3 Potential Environmental Effects

No significant environmental hazards are associated with any of the constituent chemicals in this formulation. While MRT-2000 is water soluble, the bacterial component enhances its bio-degradability and accelerates the chemical breakdown to harmless compounds.

## 4. FIRST-AID MEASURES

### 4.1 First Aid Procedures

**Eye Contact:** Use preventive measures. If contacted with eyes, flush with copious amounts of water for 15 minutes. If irritation persists, seek medical attention. Keep product away from children.

**Skin Contact:** Rinse with water. If irritation is noticed, seek medical attention. Irritation after flushing in generally not anticipated. Keep product away from children.

**Inhalation:** Do not spray in air. If aerosol is formed, leave the area immediately and start exhaust or open windows. Do not return until aerosol has been removed. Keep product away from children.

**Ingestion:** Do not induce vomiting. If oral doses of concentrated product are taken internally give large doses of water or milk. If gastric distress occurs seek medical attention. Keep product away from children.

**Note to physician:** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Flashpoint** Non-flammable liquid

**Extinguishing Media:** Determined by surrounding material. Water fog or spray, Foam, Dry Powder, Carbon Dioxide (CO<sub>2</sub>).

**Decomposition Products:** From fire; Smoke, Carbon dioxide, & Carbon Monoxide

**Lower Flame Limit:** NA

**Higher Flame Limit:** N/A

**Unusual Fire and Explosion Hazards:** None Known

**Fire Fighting Equipment:** Fire fighters and others exposed to products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Emergency Number: CHEM-TEL: 800.255.3924**
- 6.2 Spill/Leak Procedures:** Stop leak. Flush remaining residue with water to drain.
- 6.3 Disposal Procedures:** Product is self-disposing by application, is non-toxic, biodegradable and, when diluted, is acceptable to meet requirements for NPDES discharge to POTW.

## 7. HANDLING AND STORAGE

- 7.1 Handling:** Avoid eye contact, Limit skin contact. Wash all exposed areas with soap and water. Do not allow material to contact open wounds. If such contact occurs, wash with soap and water and apply superficial disinfectant.
- 7.2 Storage:** Store in a cool dry place in original containers. Keep away from strong oxidizing agents. Do not remove from original containers until prior to use, then use as soon as possible following directions contained in company literature and labeling.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Exposure Controls:** No special controls are deemed necessary so long as material is retained in original containers and stored in a cool dry place.
- 8.2 Personal Protection:** Not normally necessary. If individuals have chemically sensitive skin, irritation may result. Wear chemical resistant gloves or cease using product immediately. Avoid eye contact, Limit skin contact.
- 8.3 Personal Hygiene:** Wash all exposed areas with soap and water. Do not allow material to contact open wounds. If such contact occurs, wash with soap and water and apply superficial disinfectant.
- 8.4 Exposure guidelines:** OSHA/PEL/TWA: No limits established.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance/Odor:** Viscous, green liquid, fresh odor

**Boiling Point:** >212° F  
**Vapor Pressure:** (mm Hg) N/A  
**Specific Gravity:** 1.00 @ 25°C  
**pH:** 9.2-9.4

**Freezing Point:** <32° F  
**Vapor Density:** (Air = 1) N/A  
**Solubility in H<sub>2</sub>O:** 100%  
**F% Volatile:** .2%

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**Flash Point:** None to boiling  
**Auto-ignition Temperature:** Not determined.

**LEL/UEL:** N/K

### 10. STABILITY AND REACTIVITY

**Stability:** Product is stable

**Conditions to Avoid:** Elevated temperatures

**Incompatibility, Materials to Avoid:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Oxides of carbon.

**Polymerization:** Will not occur

**Conditions to Avoid:** Strong oxidizing agents.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1

#### **Hazardous Ingredients:** No

constituents are hazardous as defined in 29 CFR 1910.1200. All chemical ingredients in this formulation appear in whole or in part on the following inventories. CAS, EINECS, CEPA as well as others. Bacterial agents are proprietary and do not appear on any inventories but are USDA certified as NON-PATHOGENIC and are authorized for use in US government inspected meat, poultry and egg grading plants.

As no ingredients are considered hazardous, no specific toxicological studies have been done.

#### 11.2 Eye Effects:

The eye irritation hazard is based on data from information supplied by raw material(s) supplier(s).

#### **Skin Effects:**

The skin irritation hazard is based on data from information supplied by raw material(s) supplier(s).

#### **Acute Oral Effects:**

The acute oral toxicity is based on data from information supplied by raw material(s) supplier(s).

#### **Acute Inhalation Effects:**

The acute respiratory toxicity is based on data from information supplied by raw material(s) supplier(s).

**Acute Dermal Toxicity:** This product is classified as a *minimal irritant* with a Human Irritancy Equivalent (HIE) of 0.61 on a scale of 0 to 5.

**Acute Eye Toxicity:** This product is classified as a *non-irritant* with a Irritaction Draize Equivalent (IDE) of 4.3 on a scale of 0 to 80.

#### 11.3 Carcinogens:

This product does not contain any known or anticipated carcinogens according to the criteria of the NTP Annual Report on Carcinogens and OSHA 29 CFR 1910, Z.

### 12. ECOTOXICITY

Data from laboratory studies and from scientific literature is noted below if available.

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All ingredients are considered biodegradable. Biodegradability is greatly enhanced by the inclusion of bacterial components that rapidly break-down the materials that this product is designed to clean as well as the internal chemical composition.

Liquid soap product is totally water soluble. Bacterial strains used in this product are USDA certified and are compatible with and waste treatment facility using bacterial and oxygenation to treat sewage.

### 13. DISPOSAL INFORMATION

**WASTE DISPOSAL:** Follow Local, State or Federal Regulations, whichever is applicable.

### 14. TRANSPORTATION INFORMATION

The data provided in this section is for information only. The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate regulations to properly classify your shipment for transportation.

<b>PROPER SHIPPING NAME:</b>	D.O.T. NON-REGULATED – MRT-2000
<b>REPORTABLE QUANTITY:</b>	None
<b>HAZARD CLASS AND LABEL:</b>	NON-REGULATED
<b>UN NUMBER:</b>	None
<b>NA NUMBER:</b>	None
<b>PACKAGING SIZE:</b>	Gallon jugs, 5 gallon pails, 55 gallon drums, 270/330 gallon totes and Bulk tankers.

### 15. REGULATORY INFORMATION

**SARA 311 CATEGORIES:**

<b>EPA ACUTE:</b>	Yes (Eyes)
<b>EPA CHRONIC:</b>	No
<b>EPA IGNITABILITY:</b>	No
<b>EPA REACTIVITY:</b>	No
<b>EPA SUDDEN RELEASE OF PRESSURE:</b>	No
<b>CERCLA RQ VALUE:</b>	None
<b>SARA TPQ:</b>	None
<b>SARA RQ:</b>	None
<b>EPA HAZARD WASTE #:</b>	None
<b>CLEAN AIR:</b>	NA
<b>CLEAN WATER:</b>	NA
<b>SARA SECTION 313:</b>	No
<b>NFPA HEALTH:</b>	1
<b>NFPA FLAMMABILITY:</b>	0
<b>NFPA REACTIVITY:</b>	0

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DEA Chemical Trafficking Act:  
TSCA STATUS:

N/A  
All ingredients in this product are on the TSCA Inventory List, except the Bacterial Component that is USDA certified non-pathogenic..

**16. ADDITIONAL INFORMATION**

**NFPA (National Fire Protection Association ) Rating:**

Health: 1  
Flammability: 0  
Reactivity: 0

**HMIS: (Hazardous Materials Identification System) Rating:**

Health: 1  
Flammability: 0  
Reactivity: 0

**Personal Protection: N/A (none normally needed)**

**FOOT NOTES:** ND - No Data Available NA - Not Applicable < = Less Than > = Greater Than  
Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Company Health and Risk Assessment Unit, PO Box 17893, Austin, TX 78760.

**REVISION STATEMENT:** Changes have been made throughout this Material Safety Data Sheet. Please read the entire document.

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