Updated MSDS - Citrus Solvent

# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

HMIS*

HEALTH 1 REACTIVITY 0

FLAMMABILITY 2 PERSONAL PROTECTION None

**IDENTITY** (As Used on Label and List)
**BIO PRO HF**

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

## SECTION I

Manufacturer's Name
**BioSystems, Inc.**

Address (Number, Street, City, State, and ZIP Code)
**P.O. Box 464**

**Ft. Collins, CO 80522-0464**

Emergency Telephone Number
**(800)424-9300 Chemtrec**

Telephone Number for Information
**(970) 224-4605**

Date Prepared
**1/1/05**

Signature of Preparer (optional)

## SECTION II - Hazardous Ingredients/Identity Information

| Hazardous Components (Specific Chemical Identity; Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits Recommended | %(optional) |
|---|---|---|---|---|
| **d-Limonene** | | | | |
| **nonionic surfactant** | | | | |
| **proprietary blend** | | | | |

## SECTION III - Physical/Chemical Characteristics

Boiling Point
**171 C**

Specific Gravity (H20 = 1)
**0.85**

Vapor Pressure (mm Hg.)
**2**

Melting Point
**N/A**

Vapor Density (AIR = 1)
**4.7**

Evaporation Rate (Butyl Acetate = 1)
**Less than 1**

Solubility in Water
**Emulsifiable**

Appearance and Odor
**Orange color with characteristic citrus odor**

## SECTION IV - Fire and Explosion Hazard Data

Flash Point (Method Used)
**(PMCC) 140 F**

Extinguishing Media
**Dry Chemical, CO2, Foam**

Special Fire Fighting Procedures
**Water may be used to cool closed containers of product exposed to heat.**

Unusual Fire and Explosion Hazards
**Avoid heat, sparks and open flames. Explosive vapor-air mixtures may be formed at elevated temperatures. Closed containers present possible pressure build up and explosion due to heat exposure.**

## SECTION V - Reactivity Data

Stability

Unstable

Stable
X

Conditions to Avoid
**Excessive heat**

Incompatibility (Materials to Avoid)
**Strong oxidizing agents, mineral acids, and acidic clays.**

Hazardous Decomposition or Byproducts
**None**

Hazardous Polymerization

May Occur

Will not Occur
X

Conditions to Avoid
**None**

## SECTION VI - Health Hazard Data

Route(s) of Exposure:
**Absorption of d-Limonene can occure following oral, skin, eye or inhalation exposure.**

Health Hazards (Acute and Chronic)
**Acute health hazards are primarily irritation of exposed areas. Nausea and vomiting may follow ingestion of large amounts.**

Carcinogenicity:

NTP?
No

IARC Monographs?
No

OSHA Regulated?
No

Signs and Sypmtoms of Exposure
**Ingestion of large amounts may produce nausea, vomiting and diarrhea. Prolonged inhalation may produce respiratory tract irritation, nausea, and dizziness. Excessive skin exposure may produce minor irritation.**

Medical Conditions
Generally Aggravated by Exposure **N.F.**

Emergency and First Aid Procedures **Remove from contaminated area using appropriate respiratory protection. Upon eye contact, flush with water. Upon skin contact, wash exposed area with soap and water.**

## SECTION VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled
**Collect and place in a suitable container. Prevent from reaching waterways. Sorbents may be used. Keep away from ignition sources.**

Waste Disposal Method
**To be performed in compliance with all regulations. Do-not landfill. Incineration preferred.**

Precautions to be Taken in Handling and Storing
**Store in properly labeled, tightly closed containers in cool, dry well-ventilated areas. Avoid skin and eye contact and prolonged inhalation exposure. Do not ingest.**

Other Precautions
**Remove and clean contaminated clothing and footware before reuse.**

## SECTION VIII - Control Measures

Respiratory Protection (Specify Type)
**Use type approved for organic vapors by NIOSH for exposure to vapors**

Ventilation

Local Exhaust
**Provide closed systems and local exhaust to control vapors**

Mechanical (General)
**General room dilution acceptable**

Special
**None**

Other
**None**

Protective Gloves
**Butyl Rubber or PVA**

Eye Protection
**Chemical goggles**

Other Protective Clothing or Equipment
**Pumps and/or electrical ventilating fans should have explosion proof motors.**

Work/Hygienic Practices
**Normal**

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Carcinogenicity:

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IARC Monographs?
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OSHA Regulated?
No

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