

**Material Safety Data Sheet**

May 18, 2009

May be used to comply with OSHA'S Hazard Communication Standard

**IDENTITY (As used on label and list)****BioClean****SECTION I****Manufacturer's Name**Biosolutions, LLC  
1811-E Hayes  
Grand Haven, MI  
49417Emergency Telephone Number  
616-844-6393  
Information Number  
616-846-1210**SECTION II - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION**

Components	CAS NUMBER	TLV	% WT (OPT)
Dipropylene Glycol Monomethyl Ether	34590-94-8	100 ppm	<9%
Ethanolamine	141-43-5	3 ppm	<3%
D-Limonene	8028-48-6	30 ppm	<2%

**REGULATORY INFORMATION:**

United States SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 Hazard Categories:

Under the provisions of Title III, Sections 311/312 of Superfund Amendments and Reauthorizations Act (SARA) this product is classified into the hazards listed below:

Fire: No      Pressure Generating: No      Reactivity: No      Acute: Yes      Chronic: Yes

VOC content &lt; 25%

HMIS RATING: Health: 2      Fire: 0      Reactivity: 0

Not regulated by U.S. Department of Transportation (USDOT)

**SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS**

Boiling Point ----- >100 C  
 Vapor Pressure (mm Hg.) ----- <17.5 @ 20C (68F)  
 Physical State ----- Liquid  
 Solubility in Water ----- Complete  
 Appearance and odor ----- Clear, mild odor  
 pH ----- 11.5 - 11.9  
 Specific Gravity (H2O = 1) ----- 1.002  
 Melting Point ----- N/A  
 Evaporation Rate (Butyl Acetate = 1) ----- <1

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Flash Point (Method Used) ----- >200° F  
 Flammable Limits ----- N/A  
 LEL ----- N/A  
 UEL ----- N/A  
 Extinguishing Media ----- Use alcohol type foam, universal foam, dry chemical, carbon dioxide or water spray to extinguish fire.  
 Special Fire Fighting Procedures -----  
 Hazardous combustion products ----- Carbon Monoxide, Carbon Dioxide

Materials/Coatings Suitable - stainless steel, epoxy resins, polyester  
 Materials/Coatings Unsuitable - Aluminum, brass, copper, copper alloys.

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**SECTION V - REACTIVITY DATA**

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Stability ----- Stable  
Compatibility (materials to avoid) ----- Strongly Acidic Materials & Oxidizers  
Hazardous Polymerization ----- No  
Conditions To Avoid ----- None

Incompatible Materials: Oxidizing agents, copper and copper alloys, galvanized iron, brass, zinc

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**SECTION VI - EXPOSURE CONTROLS / PERSONAL PROTECTION**

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Routes of Entry: Inhalation: Yes Skin: Yes Ingestion: Yes

**POTENTIAL HEALTH EFFECTS**

Eye: Irritating, may injure eye tissue if not removed.

Skin: irritating to the skin.

Ingestion: Based on testing of similar product, liquid is considered to be moderately toxic by ingestion.

Inhalation: Not expected to be a relevant route of exposure. However, high vapor or aerosol mist concentrations may be irritating to the nose, throat, and upper respiratory tract.

Medical conditions aggravated: Pre existing skin and eye disorders may be aggravated by exposure to this product.

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**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

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**Steps to be taken in case material is released or spilled:**

**SMALL SPILL** - For small spill, take up material with an absorbent such as clay or sand and dispose of properly. Flush area with water to remove trace residue.

**LARGE SPILL** - Wear respirator and protective clothing as appropriate. Shut off source of leak if it is safe to do so. Dike and contain spilled material. Remove with vacuum trucks or pump to storage/savage containers. Soak up residue with an absorbent such as clay, sand, or other suitable material. Flush area with water to remove trace residue. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

**WATER SPILL** - Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in conformity to local disposal regulations.

**Handling and storage:**

Keep container closed. Handle and open container with care. Store in a cool, well ventilated place away from incompatible materials. Do NOT handle or store near an open flame, heat, or other source of ignition. Do NOT pressurize, cut, heat, or weld containers. Empty product containers may contain residue. Do NOT reuse empty containers without commercial cleaning or reconditioning.

Storage Temperature: 20° F minimum to 120° F maximum

Loading Temperature: 20° F minimum to 120° F maximum

Loading/Unloading Viscosity: ~10 to 100 cps

**Disposal Considerations:**

Disposal method - Dispose of this product in accordance with federal, state and local regulations.

RCRA/USPA Waste Information: If this product becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). However, the waste should be properly characterized to evaluate whether its composition has been modified through procession prior to disposal.

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## SECTION VIII - CONTROL MEASURES

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**Respiratory Protection:** Use a NIOSH-approved respirator as required to prevent overexposure. In accord with 29 CFR 1910.134, use either atmosphere-supplying or air-purifying respirator for organic vapors.

**General:** Avoid contact with eyes, skin and clothing. Where contact may occur, wear long sleeves, chemical resistant gloves, goggles, and face shield. Where concentrations in air may exceed the limits provided in this section, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

### FIRST AID MEASURES

**Eyes:** Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Get prompt medical attention.

**Skin:** Immediately flush eyes with large amounts of water for at least 15 minutes; use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. Get prompt medical attention. Do not reuse clothing or shoes until thoroughly cleaned.

**Ingestion:** Do not give liquids if victim is unconscious or very drowsy.

**Inhalation:** Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

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