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# MATERIAL SAFETY DATA SHEET

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## SECTION I - IDENTIFICATION

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**Manufacturer** BioGenesis Enterprises, Inc.  
**Address** 610 W. Rawson Ave. Oak Creek, WI 53154  
**Trade Name** FlameOut™ Fire Suppressor  
**Product** Class A/B/D Fire Suppressing Agent

**Emergency Phone** (703) 913-9700 **Date Prepared** December 15, 1995 **Reviewed** November 2009

**Information Phone** (703) 913-9700 **MSDS Control** fFLAME

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## SECTION II - INGREDIENTS AND HAZARD CLASSIFICATION

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<u>Ingredients (CAS)</u>	<u>Percent</u>	<u>OSHA PEL/TLV</u>
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Health and environmental testing shows very low hazard levels. No components of this product are believed to be hazardous, are listed in the NIOSH Recommendations for Occupational Safety and Health Standards, 1988, or are listed as hazardous by SARA, CERCLA, or RCRA. No OSHA PELs are established for any of the ingredients.

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## SECTION III - HAZARD INFORMATION

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Treat as inert / Non-hazardous. No toxic / ill effects under normal operating conditions.  
Repeated or prolonged exposure is not known to aggravate any medical conditions.

**Skin** Negligible hazard. Not a primary skin irritant. Liquid is neutral with pH 8. Dermal irritation testing for 72 hours on albino rabbits showed no erythema and no edema.

**Eyes** Hazard evaluated very low. Eye testing on albino rabbits in a 7 day test showed low levels of corneal irritation after 48 hours with full recovery by day 7, very low levels of iris irritation with complete recovery in 72 hours, moderate conjunctivae irritation after 24 hours with complete recovery by day 7, low to moderate lid swelling with complete recovery by day 7, and extremely low discharge with complete recovery in 72 hours.

**Inhalation** Hazard evaluated very low.

**Ingestion** Hazard is extremely low. Material is considered non-toxic. Nausea or diarrhea could occur in extreme cases. Screening tests on rats did not induce any mortality following oral administration at 5,000 mg/l. Oral LD<sub>50</sub> value is considered to be greater than 5,000 mg/l.

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## SECTION IV - FIRST AID MEASURES

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**Eyes** Immediately flush eyes with large amounts of water for at least 15 minutes. Seek medical aid if irritation persists.

**Skin** Flush affected area and wash with mild soap and water.

**Inhalation** Remove to fresh air; give CPR if unconscious.

**Ingestion** Monitor. If diarrhea or nausea occurs, consult a physician.

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*BioGenesis Enterprises, Inc.*

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### SECTION V - FIRE-FIGHTING MEASURES

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<b><u>Flash Point</u></b>	Not applicable.	<b><u>Flammable Limits</u></b>	Not applicable.
<b><u>LEL</u></b>	Not applicable.	<b><u>UEL</u></b>	Not applicable.
<b><u>Extinguishing Media</u></b>	Not applicable.		
<b><u>Special Fire Fighting Procedures</u></b>	None.		
<b><u>Unusual Fire and Explosion Hazards</u></b>	None.		

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### SECTION VI- ACCIDENTAL RELEASE MEASURES

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**Take care floor surface will be slippery at site of spillage.**

Wear standard material's safety attire, including goggles, boots, and gloves. Absorb and dispose of spillage. Material is safe to enter drains. Wash spill site with water once pickup is complete.

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

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**Spill or Leak Procedures**

Collect with absorbent material or pick up mechanically. Rinse affected area with water.

**Waste Disposal Method**

Dispose as non-hazardous waste in accordance with local regulations.

**Storage and Handling Precautions**

Store at ambient temperature in closed container to prevent evaporation. May be stored at temperatures to -5°C without freezing. If frozen by lower temperatures, allow to thaw at room temperature; product will not be damaged.

**Other Precautions**

Although components have very low hazard levels, the product will remove oils from the skin similar to common soap.

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### SECTION VIII- EXPOSURE CONTROLS - PERSONAL PROTECTION

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**Exposure Limits**

<b>OSHA PEL</b>	Not established.	<b>ACGIH TEL</b>	Not established.
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**Routes of Entry**

<b>Inhalation</b>	Yes	<b>Skin</b>	Yes	<b>Ingestion</b>	Yes
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**Respiratory Protection**

Not required.

**Ventilation**

Under ordinary conditions of use for its intended purpose, no special ventilation is required.

### **Protective Gloves**

Wear if there is prolonged contact with skin. Gloves not required for incidental contact.

### **Eye Protection**

Wear if needed to prevent reasonable probability of eye contact.

### **Work/Hygenic Practices**

Observe standard general work practices regarding ingestion, eye contact, and inhalation. Wash after using if there is reasonable probability of contact. Do not wear for prolonged periods non-impervious clothing that becomes wet.

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## **SECTION IX- PHYSICAL/CHEMICAL CHARACTERISTICS**

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<b><u>Boiling Point (°F)</u></b>	212°F	<b><u>Vapor Pressure (mm Hg)</u></b>	Same as water.	
<b><u>Solubility In Water</u></b>	100%	<b><u>Specific Gravity</u></b>	1.09 @ 60°F	<b><u>pH</u></b> 7
<b><u>Appearance and Odor</u></b>	Straw colored liquid, mild lemon smell. (Note: Contains no d-limonenes.)			

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## **SECTION X- REACTIVITY DATA**

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<b><u>Stability</u></b>	Stable.	<b><u>Incompatibility</u></b>	None.	
<b><u>Hazardous Decomposition Products</u></b>	Carbon monoxide and carbon dioxide.			
<b><u>Hazardous Polymerization</u></b>	Will not occur.			

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## **SECTION XI - TOXICOLOGICAL INFORMATION**

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### **Signs and Symptoms of Exposure**

<b><u>Skin</u></b>	Negligible hazard. Not a primary skin irritant. Liquid is neutral with pH 8. Dermal irritation testing for 72 hours on albino rabbits showed no erythema and no edema.
<b><u>Eyes</u></b>	Hazard evaluated very low. Eye testing on albino rabbits in a 7 day test showed low levels of corneal irritation after 48 hours with full recovery by day 7, very low levels of iris irritation with complete recovery in 72 hours, moderate conjunctivae irritation after 24 hours with complete recovery by day 7, low to moderate lid swelling with complete recovery by day 7, and extremely low discharge with complete recovery in 72 hours.
<b><u>Inhalation</u></b>	Hazard evaluated very low.
<b><u>Ingestion</u></b>	Hazard is extremely low. Material is considered non-toxic. Nausea or diarrhea could occur in extreme cases. Screening tests on rats did not induce any mortality following oral administration at 5,000 mg/l. Oral LD <sub>50</sub> value is considered to be greater than 5,000 mg/l.

### **Carcinogenicity**

<b><u>NTP?</u></b>	Not listed	<b><u>IARC?</u></b>	Not listed	<b><u>OSHA Regulated?</u></b>	Not listed.
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## **SECTION XII- ECOLOGICAL INFORMATION**

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### **Aquatic Toxicity Testing**

In accordance with U.S. EPA Office of Pollution Prevention and Toxics criteria for ranking the acute toxicity of chemicals in the aquatic environment, FlameOut™ is considered to be of low concern.

- 96 hour acute toxicity versus freshwater alga (Selenastrum capricornutum) IAW 40 CFR 797.1050 showed FlameOut™ was algicidal at concentrations above 750 ppm.

- 96 hour acute toxicity versus juvenile rainbow trout (Oncorhynchus mykiss) IAW 49 CFR 797.1400 showed an LC<sub>50</sub> of 105 ppm.

- 48 hour acute toxicity versus water fleas (Daphnia pulex) less than 24 hours old IAW 40 CFR 797.1300 showed an LC<sub>50</sub> of 159 ppm.

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### SECTION XIII- DISPOSAL CONSIDERATIONS

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This material is not regarded as hazardous waste. Observe all federal, state, and local environmental regulations. Material may be diluted with water and sent to drains. Material may be disposed of at any non-hazardous landfill that accepts liquids.

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### SECTION XIV- TRANSPORT INFORMATION

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Non-hazardous for road, sea, and airfreight.

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### SECTION XV - REGULATORY INFORMATION

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<b><u>IMO Hazard Class and Number</u></b>	Non-hazardous.	<b><u>US DOT Hazard Class</u></b>	Not regulated by DOT.
<b><u>UN Number</u></b>	Not applicable.	<b><u>US DOT Identification Number</u></b>	Not applicable.
<b><u>IMO Description (IMDG Code):</u></b>	This product is not a dangerous good as defined by IMO in the IMDG Code for water transportation.		

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### SECTION XVI - OTHER INFORMATION

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None

*Information presented in this MSDS is believed to be factual. However, nothing contained in this information is to be taken as a warranty of any kind by BioGenesis Enterprises, Inc. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.*