



## Material Safety Data Sheet

### Product Name

Lumigen® PS-3, Solution B

### Manufacturer

Lumigen, Inc.  
22900 W. Eight Mile Road  
Southfield, Michigan 48033  
Telephone: (248) 351-5600

### Composition/Information on Ingredients

Lumigen® PS-3, Solution B is a multi-component mixture.

<u>Hazardous Components</u>	<u>CAS Number</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
p-Dioxane	123-91-1	100 ppm	25 ppm
Ethyl alcohol	64-17-5	1000 ppm	1000 ppm

### Hazards Identification

**Routes of Entry:** Inhalation, skin, ingestion

**Acute:** May be harmful if inhaled, absorbed through skin or swallowed. Burning or irritation of the eyes, nose and throat; headache, dizziness, nausea, drowsiness, incoordination. Vapor or mist is irritating to the eyes, mucous membranes, skin and upper respiratory tract. Damage to the kidneys and liver.

**Chronic:** May alter genetic material. Target organs: behavioral, blood, brain, gastrointestinal, heart, kidney, liver, lungs, vascular.

**Carcinogenicity:** p-Dioxane is classified in the IARC monographs as a Group 2B carcinogen and by the NTP as an experimental animal carcinogen.

### First Aid Measures

**Eye or Skin Contact:** Flush with water (at least 15 minutes for eyes) and remove contaminated clothing.

**Ingestion:** Seek immediate medical attention.

### Fire Fighting Measures

#### p-Dioxane

**Autoignition temp.:** 356°F

**Flash Point:** 54°F

**UEL:** 22%

**LEL:** 2%

#### Ethyl alcohol

**Autoignition temp.:** 793°F

**Flash Point:** 48°F

**UEL:** 19.0%

**LEL:** 3.3%

**Extinguishing Media:** Dry chemical, carbon dioxide, or alcohol resistant foam

**Special Fire Fighting Procedures:** Water may be ineffective in fighting an alcohol fire. Use water in deluge quantities or to keep fire exposed surfaces cool.

**Unusual Fire and Explosion Hazards:** Emits toxic fumes under fire conditions. Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

### Accidental Release Measures

Contain spilled material. Ventilate area. Cover with absorbent material, pick up and store in a closed container for waste disposal. Wash spill site after material pickup is complete.

### Handling and Storage

Store at 2-8 °C. Do not expose to light.

### Exposure Controls/Personal Protection

**Personal Protective Equipment:** Use protective eyewear, chemical-resistant gloves and lab coat.

**Work/Hygienic Practices:** Do not breathe vapor. Avoid prolonged or repeated exposure. Do not get in eyes, on skin, on clothing; wash thoroughly after handling.

### Physical/Chemical Characteristics

#### p-Dioxane

**Appearance:** Colorless liquid

**Boiling Point:** 101°C

**Density:** 1.034

**Melting Point:** 11.8°C

**Vapor Pressure:** 27 mm Hg @ 20°C

#### Ethyl alcohol

**Appearance:** Colorless liquid

**Boiling Point:** 78°C

**Density:** 0.789

**Melting Point:** -117°C

**Vapor Pressure:** 45 mm Hg @ 20°C

### Stability and Reactivity

**Incompatibility:** Avoid prolonged contact with oxygen. Oxidizing agents, halogens, reducing agents, heat

**Hazardous Decomposition or Byproducts:** Carbon monoxide, carbon dioxide

**Toxicological Information**

This product has not been tested as a whole to determine its hazards.

**Ecological Information**

Do not flush to surface water or sanitary sources.

**Disposal Considerations**

Treatment, storage and transportation must comply with all Federal, State and Local laws.

**Transport Information**

Transportation must comply with all Federal, State and Local laws.

**Regulatory Information**

This substance is not listed on the TSCA Inventory of Commercial Substances, and therefore may be used only for scientific experimentation and analysis or for research and development under the supervision of a technically qualified individual.

**Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Lumigen, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.