

# SAFETY DATA SHEET

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200, the EU Directive, 91/155/EEC and other regulatory requirements.

## 1. Company and Product Identification

**Product:** Semios CM Eco DS

**Company:** SemiosBio Technologies, Inc.  
204A-3430 Brighton Avenue  
Burnaby BC  
V5A 3H4 Canada

**For General Information:**  
(604) 229-2044

## 2. Ingredients

<u>Ingredient Name</u>	<u>% by weight</u>	<u>Exposure Limits</u>
<u>Active Ingredient:</u> E,E-8,10-Dodecadien-1-ol	31.00%	None established
<u>Inert Ingredients:</u> Solvent and propellant	to 100%	None established

## 3. Hazards Identification

**Emergency Overview:** Contents under pressure. Can decompose at high temperatures forming toxic gases.

### **WHMIS Classification**

B-3	Combustible liquids
GHS Classification	Flammable liquids (Category 3)

### **Potential Health Effects:**

**Inhalation:** May cause irritation of respiratory tract.

**Skin Contact:** Exposure may cause frostbite or irritations.

**Eye Contact:** Exposure may cause eye irritation.

**Ingestion:** Product is an aerosol. Ingestion is not a likely route of exposure.

## 4. First Aid Measures

### FIRST AID PROCEDURES

**Inhalation:** Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Oxygen may be given if necessary. Seek medical attention immediately.

**Skin Contact:** Treat frostbite by immediately immersing affected areas in warm water until the skin has warmed up and turned pink. Obtain medical attention IMMEDIATELY.

**Eye Contact:** Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. Obtain medical attention IMMEDIATELY.

**Ingestion:** Have victim drink about 250ml (8fl. oz.) of water to dilute material in stomach. Do not induce vomiting. Seek medical attention immediately.

## 5. Fire Fighting Measures

<i>Flashpoint (°C)</i>	<i>Autoignition Temperature (°C)</i>	<i>Flammability Limits in Air (%):</i>	
		<i>LEL</i>	<i>UEL</i>
67.1°F	Not available.	Not available.	Not available.

**Flammability Class (WHMIS):** B-3: Combustible liquid.

**Hazardous Combustion Products:** Thermal decomposition products are toxic and may include oxides of carbon.

**Unusual Fire or Explosion Hazards:** Vapours from this product are heavier than air, and may "travel" to a source of ignition (eg. pilot lights, heaters, electric motors) some distance away, and then "flash back" to the point of product discharge causing an explosion and fire. Expansion of liquid and change of state from liquid to vapour will allow combustible mixture to encompass a large area.

**Sensitivity to Mechanical Impact:** Not expected to be sensitive to mechanical impact.

**Sensitivity to Static Discharge:** Expected to be sensitive to static discharge when vapours are present between the lower and upper explosive limits.

**Fire Extinguishing Media:** Do not extinguish flame unless leak can be stopped immediately. Use carbon dioxide or dry chemical media for small fires. If only water is available, use it in the form of a fog.

## 6. Accidental Release Measures

**Personal precautions:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Environmental precautions:** Prevent leakage or spillage. Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Contain spillage, and collect liquid with adsorbent material, and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

## 7. Handling and Storage

**Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition. Take measures to prevent electrostatic discharge.

**Conditions for safe storage:** Keep aerosol canister in a dry and well-ventilated place. Ideal storage temperature is 10 - 27°C. Do not expose sealed containers to temperatures above 40° C. Protect against physical damage.

## 8. Exposure Control / Personal Protection

### Personal protective equipment

**Engineering Controls:** Local exhaust ventilation required. Ventilate low lying areas such as sumps or pits where dense vapours may collect.

**Respiratory protection:** In case of insufficient ventilation, use self-contained respiratory equipment.

**Hand protection:** Handle with gloves. Wash and dry hands.

**Eye protection:** Safety glasses with side-shields should be used.

**Skin and body protection:** The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## 9. Physical and Chemical Properties

Physical State:	liquid
Color:	transparent, slightly yellow
Odor:	alcohol-like, slightly fruity odor
Odor Threshold	no data available
pH	6.27
Melting point	no data available
Boiling point	no data available
Flash point	67.1°F
Ignition temperature	no data available
Auto-ignition	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	0.841 g/mL at 20°C (68 °F) excluding propellant
Water solubility	no data available

Partition coefficient:	no data available n-octanol/water
Relative vapour density	no data available
Evaporation rate	no data available

## 10. Stability and Reactivity

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** no data available

**Conditions to avoid:** Sources of ignition.

**Materials to avoid:** Oxygen, oxidizers, carbon monoxide, acetic acid, acid anhydrides.

**Hazardous decomposition products:** Thermal decomposition products are toxic and may include oxides of carbon.

**Other decomposition products:** no data available

## 11. Toxicological Information

### Acute Toxicity

**Oral LD50:** no data available

**Inhalation LC50:** no data available

**Dermal LD50:** no data available

**Skin corrosion/irritation:** no data available

**Eyes:** no data available

**Respiratory or skin sensitization:** no data available

**Carcinogenicity:** Not carcinogenic

**Reproductive toxicity and Teratogenicity:** no data available

## 12. Environmental Information

**Toxicity:** no data available

**Persistence and degradability:** no data available

**Bioaccumulative potential:** no data available

**Mobility in soil:** no data available

**PBT and vPvB assessment:** no data available

**Other adverse effects:** no data available

### 13. Disposal

The aerosol container is not refillable. When container is empty, recycle if available. If recycling is not possible, wrap the container and dispose in landfill.

### 14. Transportation Information

**Proper Shipping Name:** UN1950 Aerosols flammable

**DOT Hazard Class:** 2.1

**Ground:** UN1950 Aerosols, flammable, Class 2.1

**Air:** UN1950 Aerosols, flammable, Class 2.1

**Marine:** UN1950 Aerosols, flammable, Class 2.1

### 15. Regulatory Information

**NFPA Ratings:** Health - 2      Fire - 1      Reactivity - 1      Special - none

**TSCA:** All ingredients in this product are either listed or excluded from the TSCA Inventory.

**SARA Title III:** This product does not contain any ingredients subject to Section 313 (40 CFR 372) reporting requirements.

#### WHMIS Classification

B-3      Combustible Liquid

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### 16. 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. The information in this document is based on the present state of manufacturer's knowledge and is applicable to the product with regard to appropriate safety precautions. SemiosBIO Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the above product