

# 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 CRS Plus

**Company:** SemiosBio Technologies, Inc.  
101-887 Great Northern Way  
Vancouver BC V5T 4T5  
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> (3S,6RS)-3-Methyl-6-isopropenyl-9-decen-1-yl acetate	5.5%	None established
<u>Inert Ingredients:</u> Solvent and propellant	to 100%	None established

---

## 3. Hazards Identification

---

HAZARD CLASSIFICATION..... CAUTION.  
SIGNAL WORD..... CAUTION.  
HAZARD STATEMENTS ..... H223 FLAMMABLE AEROSOL. H229 PRESSURIZED CONTAINER: MAY BURST IF HEATED. H302 HARMFUL IF SWALLOWED. H315+H320 CAUSES SKIN AND EYE IRRITATION.  
PRECAUTIONARY STATEMENTS..... P101 IF MEDICAL ADVICE IS NEEDED, HAVE PRODUCT CONTAINER OR LABEL AT HAND. P102 KEEP OUT OF REACH OF CHILDREN. P103 READ LABEL BEFORE USE.  
OTHER HAZARDS..... No additional information available.

---

## 4. First Aid Measures

---

EMERGENCY FIRST AID PROCEDURE .... IN CASE OF EYE CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION. FOR SKIN, WASH THOROUGHLY WITH SOAP AND WATER. IF AFFECTED BY INHALATION OF VAPOUR OR SPRAY MIST, REMOVE TO FRESH AIR. IF SWALLOWED; DO NOT INDUCE VOMITING, GET MEDICAL ATTENTION.

---

---

## 5. Fire Fighting Measures

---

FLAMMABILITY..... FLAMMABLE.  
 IF YES, UNDER WHICH CONDITIONS?..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.  
 SPECIAL PROCEDURES..... WATER FROM FOGGING NOZZLES MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT BUILD-UP IF EXPOSED TO EXTREME TEMPERATURES. FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPARTATUS SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.

EXPLOSION DATA  
 SENSITIVITY TO STATIC DISCHARGE. NOT APPLICABLE.  
 SENSITIVITY TO IMPACT..... NOT APPLICABLE.

EXTINGUISHING MEDIA..... WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.

HAZARDOUS COMBUSTION PRODUCTS..... HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.

AEROSOL FLAME PROJECTION  
 CLASSIFIED AS:..... <15cm.  
 FLASHBACK..... NONE.

---

## 6. Accidental Release Measures

---

LEAK/SPILL..... REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE.

---

## 7. Handling and Storage

---

STORAGE NEEDS..... KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES.  
 ENGINEERING CONTROLS..... VENTILATION - LOCAL (MECHANICAL IF INDOORS ON A CONTINUOUS BASIS).  
 HANDLING PROCEDURES AND ..... STORE IN A COOL, WELL VENTILATED AREA NOT TO EXCEED 50 DEG C.  
 EQUIPMENT  
 SYNERGISTIC MATERIALS..... NONE KNOWN.

---

## 8. Exposure Control / Personal Protection

---

GLOVES/ TYPE..... WEAR CHEMICAL RESISTANT GLOVES.  
 RESPIRATORY/TYPE..... IF USED INDOORS ON A CONTINUOUS BASIS, USE OF A CARTRIDGE TYPE RESPIRATOR (NIOSH/MSHATC 23C OR EQUIVALENT) IS RECOMMENDED.  
 EYE/TYPE..... SAFETY GLASSES.  
 FOOTWEAR/TYPE..... NOT NORMALLY REQUIRED.  
 OTHER/TYPE..... NOT REQUIRED.  
 EXPOSURE LIMIT OF MATERIAL..... SEE SECTION 2.

**Exposure Guidelines (Propellant):**

SUBSTANCE	ACGIH TLV (STEL)	OSHA PEL		NIOSH REL	
		(TWA)	(STEL)	(TWA)	(STEL)
Propane	---	1000 ppm	---	1000 ppm	---
n-Butane	---	---	---	800 ppm	---
Isobutane	---	---	---	800 ppm	---

**9. Physical and Chemical Properties**

PHYSICAL STATE..... AEROSOL.  
 APPEARANCE..... CLEAR, COLOURLESS.  
 ODOR..... WAXY.  
 ODOR THRESHOLD..... NOT AVAILABLE.  
 pH..... NOT APPLICABLE.  
 FREEZING POINT: (°C)..... NOT AVAILABLE.  
 BOILING POINT (°C)(CONC)..... LOWEST KNOWN VALUE IS ETHANOL @78.5C.  
 FLASH POINT(°C),TAG CLOSED-CUP ..... LOWEST KNOWN VALUE IS ETHANOL @ 13C.  
 (CONCENTRATE)  
 EVAPORATION RATE..... GREATER THAN 1.  
 n-BUTYL ACETATE = 1  
 UPPER FLAMMABLE LIMIT..... 19.  
 (% BY VOLUME)  
 LOWER FLAMMABLE LIMIT..... 3.3.  
 (% BY VOLUME)  
 VAPOUR PRESSURE(PSIG)-AEROSOL..... 60-70.  
 @ 20 C  
 VAPOUR DENSITY (AIR=1)..... GREATER THAN 1.  
 (BY WEIGHT)  
 SPECIFIC GRAVITY (AEROSOL)..... 0.61-0.65.  
 SPECIFIC GRAVITY (LIQUID)..... 0.79-0.83.  
 SOLUBILITY IN WATER g/L (20°C)..... NEGLIGIBLE.  
 COEFFICIENT OF WATER\OIL DIST..... NOT AVAILABLE.  
 AUTO IGNITION TEMPERATURE (°C)..... 422.

**10. Stability and Reactivity**

HAZARDOUS PRODUCTS OF  
 DECOMPOSITION..... HYDROCARBON FUMES AND SMOKE. CARBON  
 MONOXIDE WHERE COMBUSTION IS INCOMPLETE.  
 CHEMICAL STABILITY:  
 YES..... UNDER NORMAL CONDITIONS.  
 NO, WHICH CONDITIONS?..... NOT APPLICABLE.  
 COMPATIBILITY WITH OTHER  
 SUBSTANCES:  
 NO, WHICH ONES?..... STRONG OXIDIZING AGENTS.  
 REACTIVITY CONDITIONS?..... NOT APPLICABLE.

**11. Toxicological Information**

ETHANOL (Ethyl Alcohol) ..... LC50: 31,623 ppm (4 hr) INHAL - RAT  
LD50: 7060 mg/kg ORAL – RAT  
(3S,6RS)-3-Methyl-6-isopropenyl-9-decen-1-yl acetate LC50: N/A LD50: N/A  
ISOBUTANE ..... LC50: 142,500 ppm (4h) INHAL - RAT  
LD50: NOT APPLICABLE  
PROPANE ..... LC50: NOT AVAILABLE  
LD50: >5000 mg/kg DERMAL-RABBITS

ROUTE OF ENTRY:  
INHALATION..... INHALATION OF SOLVENTS MAY CAUSE IRRITATION.  
PROPELLANT IS A SIMPLE ASPHYXIANT.  
INGESTION..... MAY CAUSE HEADACHE, NAUSEA, VOMITING AND  
WEAKNESS.  
EYE CONTACT..... MAY CAUSE IRRITATION.  
SKIN CONTACT..... MAY CAUSE IRRITATION.  
SKIN ABSORPTION..... ETHANOL CAN BE ABSORBED IN TOXIC AMOUNTS,  
ESPECIALLY FROM PROLONGED OR REPEATED  
EXPOSURE.  
EFFECTS OF ACUTE EXPOSURE..... DIZZINESS, NAUSEA. IRRITATION TO SKIN & EYES.  
EFFECTS OF CHRONIC EXPOSURE..... SOLVENTS MAY CAUSE DEFATTING DERMATITIS  
IRRITANCY OF MATERIAL..... SKIN/EYE IRRITANT.  
CARCINOGENICITY OF MATERIAL..... THE INGREDIENTS OF THIS PRODUCT ARE NOT  
LISTED AS CARCINOGENS BY NTP, (NATIONAL  
TOXICOLOGY PROGRAM), NOT REGULATED AS  
CARCINOGENS BY OSHA, (OCCUPATIONAL SAFETY  
AND HEALTH ADMINISTRATION), AND HAVE NOT BEEN  
EVALUATED BY IARC, (INTERNATIONAL AGENCY FOR  
RESEARCH ON CANCER), NOR BY ACGIH (AMERICAN  
CONFERENCE OF GOVERNMENTAL INDUSTRIAL  
HYGIENISTS).  
MUTAGENICITY..... NO INFORMATION IS AVAILABLE AND NO ADVERSE  
MUTAGENIC EFFECTS ARE ANTICIPATED.  
TERATOGENICITY..... NO INFORMATION IS AVAILABLE AND NO ADVERSE  
TERATOGENIC EFFECTS ARE ANTICIPATED.  
REPRODUCTIVE EFFECTS..... NO INFORMATION IS AVAILABLE AND NO ADVERSE  
REPRODUCTIVE EFFECTS ARE ANTICIPATED.  
SENSITIZING CAPABILITY OF MATERIAL. UNKNOWN.

**12. Environmental Information**

ENVIRONMENTAL..... NOT AVAILABLE

**13. Disposal**

WASTE DISPOSAL..... DO NOT PUNCTURE OR INCINERATE CONTAINERS,  
EVEN WHEN EMPTY. DISPOSE OF IN ACCORDANCE  
WITH LOCAL, PROVINCIAL AND FEDERAL  
REGULATIONS.

---

## 14. Transportation Information

---

T.D.G. CLASSIFICATION..... CONSUMER COMMODITY ( AEROSOLS, UN1950, CLASS 2.1).  
 Proper Shipping Name..... AEROSOLS, FLAMMABLE.  
 UN Class..... 2.1.  
 UN Number..... 1950.  
 IATA:

---

## 15. Regulatory Information

---

### CANADIAN REGULATIONS:

---

WHMIS CLASSIFICATION..... NOT APPLICABLE.  
 CNFC SECTION 3.3.5..... LEVEL 3.  
 CEPA (Canadian Environmental Protection Act)..... ALL SUBSTANCES IN THIS PRODUCT ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST (DSL) OR ARE NOT REQUIRED TO BE LISTED.

### U.S. REGULATIONS:

---

HMIS RATING HEALTH..... 1 SLIGHT HAZARD.  
 HMIS RATING FLAMMABILITY..... 3 SERIOUS HAZARD.  
 HMIS RATING REACTIVITY..... 0 MINIMAL HAZARD.  
 HMIS RATING PERSONAL PROTECTION.. B.  
 NFPA CODE 30B..... LEVEL 3.  
 SARA 313 INFORMATION:..... THIS PRODUCT CONTAINS NO INGREDIENTS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372. . CAS #: CHEMICAL NAME: . N/A.  
 CALIFORNIA PROPOSITION 65:..... THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY WITH THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986: WARNING: THIS PRODUCT DOES NOT INTENTIONALLY CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. CAS #: CHEMICAL NAME: N/A.  
 TSCA (Toxic Substances Control Act)..... ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT IS EXEMPT FROM LISTING.

---

## 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