

# Frontier Specialty Chemicals Inc.

## Safety Data Sheet

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<http://www.frontiersci.com>

### 1. PRODUCT IDENTIFICATION OF SUBSTANCE/MIXTURE AND SUPPLIER INFORMATION

Product form: Solid  
Product Name: Mesobiliverdin (microbial source)  
CAS No.: 493-88-9  
Formula: C33H38N4O6  
FSCI Catalog #: M14136  
Emergency Tel No: Chemtrec 1-800-424-9300

### 2. HAZARDS IDENTIFICATION---Label Information

Signal Word	WARNING
Hazard Statement(s)	H315: Causes skin irritation H319: Causes serious eye irritation H335: May cause respiratory irritation



**General Risk:** Avoid inhalation, contact with skin or eyes, and ingestion. Always use personal protective Equipment when handling this compound. (Additional information may be included in SDS)

#### Precautionary Statements

P233-Keep container tightly closed.  
P261-Avoid breathing dust/ fume/ gas/ vapors/ spray.  
P264-Wash hands thoroughly after handling.  
P274-Use only outdoors or in a well-ventilated area.  
P280-Wear Impervious gloves/ protective clothing/ eye protection/ face protection.  
P302-IF ON SKIN Wash with plenty of soap and water.  
P304-IF INHALED Remove victim to fresh air and keep at rest in a comfortable position for breathing.  
P305-IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P312-Call a POISON CENTER or doctor/physician if you feel unwell.  
P313-IF exposed or concerned: Get medical advice/attention.

### **3. COMPOSITION / Information on INGREDIENTS**

**Product Name:** Mesobiliverdin (microbial source)

**CAS No.:** 493-88-9

**Formula** C33H38N4O6

**Appearance:** No data available

### **4. FIRST AID MEASURES**

- Inhalation:** Remove to fresh air. In cases of serious discomfort, seek medical attention. If not breathing, trained personnel should administer oxygen or artificial respiration.
- Eye Contact:** Flush with copious amounts of water for at least 20 minutes. Seek immediate medical Attention.
- Skin Contact:** Remove contaminated clothing. Rinse affected area with copious amounts of water. Rinse thoroughly. In case of skin damage or persistent irritation, seek immediate medical attention. Show the physician the container details.
- Ingestion:** Call a physician or poison control center immediately. Induce vomiting only if instructed to do so by medical personnel. Seek immediate medical attention.

### **5. FIRE FIGHTING MEASURES**

- Extinguishing Medium:** Use firefighting measures which suit the environment and take into account other materials which may be involved. Use carbon dioxide or dry powder for fires involving this material. In general, water-based extinguishers are not recommended for fires involving organic materials.
- Protective Equipment:** Wear self-contained breathing apparatus and protective clothing. Most compounds emit toxic Gases when burning.

### **6. ACCIDENTAL RELEASE MEASURES**

- Personal Protection:** Avoid inhalation or contact of spilled material with skin or clothing. Wear protective clothing. Keep unprotected persons away.
- Environmental Protection:** Take precautions to ensure product does not contaminate the ground or enter the drainage system.
- Collection:** Contain or absorb, as appropriate. Minimize dust generation, where applicable. Dispose According to Section 13.

### **7. HANDLING AND STORAGE**

- Handling:** Chemicals should be used only by those trained in handling potentially hazardous materials. Impervious gloves, eye protection and protective clothing should be worn. Operations Should be carried out in efficient fume hood or equivalent system. Avoid breathing or dust, Vapor, mist, or gas.
- Storage:** Store in a cool dry, well-ventilated area. Store in a tightly sealed container. Protect from moisture, heat, ignition sources, and incompatible substances. Protect from direct light. See stability and reactivity for more details on incompatible substances if available.

## **8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

<b>Respiratory:</b>	Avoid inhalation of product. Handle in an efficient fume hood or equivalent system. Keep unprotected persons away.
<b>Eye: Protection:</b>	Avoid eye contact. Wear safety glasses, goggles or, for larger quantities, a full-face shield. system.
<b>Hands and Body:</b>	Avoid skin contact. Wear Impervious gloves and, for larger quantities, a full arm and body protection. Wash hands thoroughly after handling.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	No data available
<b>Boiling Point:</b>	Not specified
<b>Melting Point:</b>	Not specified
<b>Water Solubility:</b>	Not specified
<b>Flash Point:</b>	No data available
<b>Formula Weight:</b>	586.678
<b>Density:</b>	No data available
<b>Lower Explosive Limit:</b>	No data available
<b>Upper Explosive Limit:</b>	No data available
<b>PEL:</b>	No data available
<b>Auto Ignition Point:</b>	No data available

## **10. STABILITY AND REACTIVITY**

<b>10.1 Reactivity:</b>	No data available
<b>10.2 Chemical stability:</b>	No data available
<b>10.3 Possibility of hazardous reactions:</b>	No data available
<b>10.4 Conditions to avoid:</b>	No data available
<b>10.5 Incompatible materials:</b>	No data available
<b>10.6 Hazardous decomposition products</b>	<b>Other decomposition products</b> - No data available
<b>10.7 Hazardous decomposition products formed under fire conditions.</b>	- No data available

## **11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects:** The full toxicological effects of this compound have not been studied. However, as a minimum precaution, it should be considered to be harmful. Hazardous decomposition products may occur when this compound comes in contact with other chemicals, fire, or water.

<b>Acute toxicity:</b>	No data available
<b>Skin corrosion/irritation:</b>	No data available
<b>Ames test Result:</b>	No data available

## **TOXICOLOGICAL INFORMATION Continued**

<b>Carcinogenicity IARC:</b>	No data available
<b>NTP:</b>	No data available
<b>OSHA:</b>	No data available
<b>Reproductive toxicity:</b>	No data available
<b>Specific target organ toxicity:</b>	No data available
<b>Single exposure Inhalation:</b>	No data available
<b>Repeated exposure:</b>	No data available
<b>Aspiration hazard:</b>	No data available

## **12. ECOLOGICAL EFFECTS**

Take care to prevent chemicals from entering the ground, water bodies, or drainage systems.

## **13. DISPOSAL CONSIDERATIONS**

Disposal should be carried out via an approved contractor according to all federal, state and local regulations.

## **14. TRANSPORT INFORMATION**

<b>UN Number:</b>	No data available
<b>Packing Group:</b>	No data available
<b>Hazard Class:</b>	<b>No data</b>
<b>DOT: Ship Name:</b>	<b>No data</b>
<b>Other Information:</b>	No data

## **15. REGULATORY INFORMATION**

**U.S. Federal regulations:** None available

**SARA 313 Reportable Chemicals  
Form R – Reporting requirements**

**Product name:**

**CAS/313 Category Codes**

**%**

## **16. OTHER INFORMATION**

The information on this Safety Data Sheet is correct to the best knowledge as of the date of publication. This information should be used only as a guide and is not a guarantee of any specific properties. All chemicals should be handled by qualified personnel using proper handling precautions. FSCI cannot accept liability for any loss, damage, or injury that results from the use of this chemical.

**THIS SUBSTANCE IS FOR RESEARCH AND DEVELOPMENT PURPOSES ONLY.**