

---

## MATERIAL SAFETY DATA SHEET

---

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Riboflavin

Sarchem Laboratories, Inc.  
5012 Industrial Road  
Farmingdale, NJ 07727

Emergency Phone No: 800-255-3924  
International: +1-813-248-0585  
ChemTel Inc

---

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS</u>	<u>Molecular Weight</u>
Riboflavin	83-88-5	376.37 g/mole

Synonym: Vitamin B2; 7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypropyl)isoalloxazine

Chemical Formula: C<sub>17</sub>H<sub>20</sub>N<sub>4</sub>O<sub>6</sub>

---

### 3. HAZARDS INFORMATION:

#### **Potential Acute Health Effects:**

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

#### **Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

---

### 4. FIRST AID MEASURES:

**Eye Contact:** Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.

**Skin Contact:** After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

**Serious Skin Contact:** Not available.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:** Not available.

**Ingestion:** Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

---

## 5. FIRE FIGHTING MEASURES

**Flammability of the Product:** May be combustible at high temperature.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**Fire Hazards in Presence of Various Substances:** Not available.

**Explosion Hazards in Presence of Various Substances:**

**Risks of explosion of the product in presence of mechanical impact:** Not available.

**Risks of explosion of the product in presence of static discharge:** Not available.

**Fire Fighting Media and Instructions:** SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

---

## 6. Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

---

## 7. Handling and Storage

**Precautions:** Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust.

**Storage:** Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

---

## 8. Exposure Controls / Personal Protection

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

### Appearance

Form	Solid
------	-------

### Safety data

pH	no data available
Melting Point	Decomposes. (280°C or 536°F)
Boiling Point	no data available
Flash Point	no data available
Ignition temperature	no data available
Lower exposure limit	no data available
Upper exposure limit	no data available
Vapor pressure	no data available
Water solubility	Very slightly soluble in cold water

---

## 10. Stability and Reactivity

### Storage stability

Stable under recommended storage conditions.

---

## 11. Toxicological Information

### Acute toxicity

no data available

### Skin corrosion/irritation

---

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Other Toxic Effects on Humans:**

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

---

**12. Ecological Information**

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

---

### 13. Disposal Considerations

#### **Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber

---

### 14. Transportation Information

#### **DOT (US)**

Not dangerous goods

#### **IMDG**

Not dangerous good

#### **IATA**

Not dangerous goods

---

### 15. Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: Riboflavin

Other Regulations: Not available..

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):p. 5

This product is not classified according to the EU regulations.

#### **HMIS (U.S.A.):**

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

#### **National Fire Protection Association (U.S.A.):**

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

#### **Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses

---

**16. OTHER INFORMATION:**

**Further Information**

Copyright 2011 Sarchem Laboratories, Inc. License granted to make unlimited paper copies for internal use only. 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 our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sarchem Laboratories, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.