



Cambridge Isotope Laboratories, Inc.  
50 Frontage Road  
Andover, MA 01810

Number:  
Issue Date

SNLM-3844  
04/15/11

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## MATERIAL SAFETY DATA SHEET

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### 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description TIN-116 METAL (116Sn)

Cambridge Isotope Laboratories, Inc.  
50 Frontage Rd  
ANDOVER, MA 01810  
USA

E-mail [cilsales@isotope.com](mailto:cilsales@isotope.com)  
Web Site [www.isotope.com](http://www.isotope.com)

#### Phone Numbers

Emergency Contact Chemtrec  
Emergency Phone 1-800-424-9300 (24 hours)  
  
Customer Service 1-800-322-1174 (8:30-5:30 EST)  
Phone  
Transportation 1-202-483-7616 (24 hours)

### 2 HAZARDS IDENTIFICATION

OSHA Hazards  
Irritant

GHS Classification  
Eye irritation (Category 2)  
Specific Target Organ Toxicity - Single exposure (Category 3)

#### GHS Label Information

Signal Word Warning

Hazards Identification  
Exclamation mark

Hazard Statement(s)  
Causes serious eye irritation.  
May cause respiratory irritation.

Precautionary Statement(s)  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.



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Wear protective gloves/protective clothing/eye protection/face protection.  
IF INHALED: Remove victim to fresh air. Keep at rest in a comfortable position.  
IF IN EYES: Rinse with water for several minutes. Remove contact lenses.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
If eye irritation persists: Get medical advice/attention.

### HMIS Ratings

Physical	0
Flammability	0
Health	2

### NFPA Codes

Fire	0
Health	2
Reactivity	0

### Potential Health Effects

Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Composition / Information on Ingredients

Chemical Formula	Sn
Molecular Weight	116
CAS No.	7440-31-5 (unlabeled)
EC No.	231-141-8

## 4 FIRST AID MEASURES

### First Aid Measures

Eyes	Flush eye with water for 15 minutes. Get medical attention.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash with soap and plenty of water. Consult a physician.



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Additional Information      Move out of dangerous area. Consult a physician and show this safety data sheet.

### 5 FIRE FIGHTING MEASURE

#### Fire Fighting Measures

Extinguishing Media      Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Fire Fighting Equipment      Wear self contained breathing apparatus for fire fighting if necessary.

### 6 ACCIDENTAL RELEASE MEASURES

#### Accidental Release Measures

Personal Precautions      Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions      Do not empty into drains.

Methods and materials for containment and cleanup      Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

#### Precautions for Safe Handling

Handling      Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

#### Conditions for Safe Storage

Storage      Store at room temperature away from light and moisture.

### 8 EXPOSURE CONTROL / PERSONAL PROTECTION

#### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

CHEMICAL NAME  
TIN (METAL)

TWA

OSHA PEL      ACGIH TLV  
2 mg/M<sup>3</sup>



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### Personal Protection

Eyes - Face	Wear safety glasses with side shields (or goggles) and a face shield.
Skin	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory	When appropriate, use NIOSH/CEN approved respirator.
Protective Clothing	Wear suitable protective clothing and gloves.
Work Hygienic Practices	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties (Unlabeled Compound)

Form	Powder
pH	No data available
Melting Point	231.9 °C (449.4 °F) - lit
Boiling Point	2,270 °C (4,118 °F) - lit
Flashpoint	Not applicable
Evaporation Rate	
Lower Explosion Limit	> 99.99 % (V)
Solubility in Water	No data available
Auto Ignition Temperature	No data available

## 10 STABILITY AND REACTIVITY

### Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Conditions to Avoid	Not available
Hazardous decomposition products	Formed under fire conditions: Tin/tin oxides
Materials to avoid	Strong oxidizing agents, Sulphur compounds, Strong bases, Halogens
Additional Information	Do not store near acids.



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### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Serious                      No data available  
Damage/Eye  
Irritation

Skin                              No data available  
Corrosion/Irritation

Inhalation                      No data available

Respiratory or Skin      Not available  
Sensitization

Germ Cell                      Not available  
Mutagenicity

Carcinogenicity              Carcinogenicity - rat - Implant  
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

CArcinogenicity - mouse - Implant  
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

IARC                              No component of the product present at levels greater than or equal to 0.1% is identifiable 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 identifiable 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 identifiable 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                Not available  
Toxicity

#### Specific Target Organ Toxicity

Single Exposure              Inhalation - May cause respiratory irritation  
Repeated Exposure          No data available

#### Signs and Symptoms of Exposure

The chemical, physical, and toxicological properties have not been thoroughly investigated.



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### Other Information

RTECS                    XP7320000

### 12 ECOLOGICAL INFORMATION

#### Toxicity

Persistence and        Not available  
Degradability

Bioaccumulative        Not available  
Potential

Mobility in Soil        Not available

PBT and vPvB         Not available  
Assessment

Other Adverse         Not available  
Effects

### 13 DISPOSAL CONSIDERATIONS

#### Disposal Considerations

Product Disposal        Waste materials should be disposed of under conditions which meet Federal, State, and Local  
environmental control regulations.

### 14 TRANSPORT INFORMATION

#### Transportation Information-DOT/IATA/IMDG

Special Shipping        Not dangerous goods.  
Notes

### 15 REGULATORY INFORMATION

#### Regulatory Information

Irritant



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### SARA

Sara 302 Component No chemicals in this material are subject to the reporting requirements.  
Sara 313 Component No chemicals in this material are subject to the reporting requirements.

### SARA 311/312 Hazards

Acute (Y/N) Y

### STATE REGULATIONS

Massachusetts Right to Know Yes  
New Jersey Right to Know Yes

California Proposition 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### Canada

DSL Status All components are on the Canadian DSL list.

### EU

Hazard Flammable. Irritant.

### Safety Statements

Keep away from sources of ignition - No smoking.  
For waste disposal purposes, this product is not known to be defined or designated as hazardous by current provisions of the Federal (EPA) resource Conservation and Recovery Act (RCRA, 40CFR261).  
Take precautionary measures against static discharges.  
Wear suitable protective clothing, gloves and eye/face protection.

### Risk Statements

Highly flammable.  
Irritating to eyes and respiratory system.  
Danger of very serious irreversible effects.

## 16 OTHER INFORMATION

Additional MSDS Information This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.



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