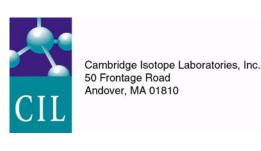
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MATERIAL SAFETY DATA SHEET

CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description TIN-112 METAL (112Sn)

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

E-mail cilsales@isotope.com Web Site www.isotope.com

Phone Numbers

Emergency Contact Chemtrec

Emergency Phone 1-800-424-9300 (24 hours)

Customer Service

Phone

1-800-322-1174 (8:30-5:30 EST)

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.

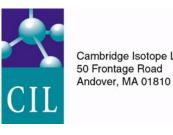
Precautionary Statement(s)

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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Cambridge Isotope Laboratories, Inc.

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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

0 Fire Health 2 Reactivity 0

Potential Health Effects

Eves 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.

COMPOSITION / INFORMATION ON INGREDIENTS 3

Composition / Information on Ingredients

Chemical Formula

Molecular Weight 112.15

CAS No. 7440-31-5 (unlabeled)

EC No. 231-141-8

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 Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate

Precautions 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.

HANDLING AND STORAGE 7

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

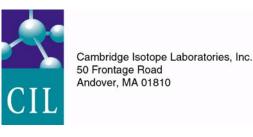
Storage Store at room temperature away from light and moisture.

EXPOSURE CONTROL / PERSONAL PROTECTION 8

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200) CHEMICAL NAME TIN (METAL)

OSHA PEL **ACGIH TLV TWA** 2 mg/M³

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MATERIAL SAFETY DATA SHEET

Personal Protecton

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 Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks

Practices and at the end of workday.

PHYSICAL AND CHEMICAL PROPERTIES 9

Physical and Chemical Properties (Unlabeled Compound)

Form Powder

рΗ 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 > 99.99 % (V)

Limit

7.31 g/cm3 at 25 °C (77 °F) Density

Solubility in Water No data available Auto Ignition No data available

Temperature

10 STABILITY AND REACTIVITY

Stability and Reactivity

Chemical Stability Stable if stored under recommended conditions.

Conditions to Avoid Not available

Formed under fire conditions: Tin/tin oxides Hazardous

decomposition products

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MATERIAL SAFETY DATA SHEET

Materials to avoid

Strong oxidizigna gents, Sulphur compounds, Strong bases, Halogens

Additional

Do not store near acids.

Information

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

Sensitization

Not available

Germ Cell Mutagenicity Not available

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.

No component of this product present at levels greater than or equal to 0.1% is identifiable as a NTP

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

Not available

Specific Target Organ Toxicity

Single Exposure Inhalation - May cause respiratory irritation

Repeated Exposure No data available

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MATERIAL SAFETY DATA SHEET

Signs and Symptoms of Exposure

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

Other Information

RTECS XP7320000

ECOLOGICAL INFORMATION 12

Toxicity

Persistance and Degradability

Not available

Bioaccumulative

Potential

Not available

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.

TRANSPORT INFORMATION 14

Transportation Information-DOT/IATA/IMDG

Special Shipping

Not dangerous goods.

Notes

15 **REGULATORY INFORMATION**

Regulatory Information

Irritant

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MATERIAL SAFETY DATA SHEET

SARA

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

Component

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

Component

SARA 311/312 Hazards

Acute (Y/N) Υ

STATE REGULATIONS

Massachusetts Yes

Right to Know

New Jersey Right

to Know

Yes

California This product does not contain any chemicals known to State of California to cause cancer, birth

Proposition 65 defects, or any other reproductive harm.

Canada

DSL Status All components are on the Canadian DSL list.

ΕU

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.



MATERIAL SAFETY DATA SHEET

Approved On 04/15/11 Version Number 1