



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

Number:
Issue Date

OSLM-4218
04/08/11

Page 1 of 7

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description OSMIUM-187 METAL (187Os)

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 1-800-322-1174 (8:30-5:30 EST)
Phone
Transportation 1-202-483-7616 (24 hours)

2 HAZARDS IDENTIFICATION

OSHA Hazards

Flammable solid, Irritant

GHS Classification

Flammable solids (Category 2)
Skin irritation (Category 2)
Serious eye damage (Category 1)
Specific Target Organ Toxicity - Single exposure (Category 3)

GHS Label Information

Signal Word Danger

Hazards Identification

Flame
Corrosion
Exclamation mark

Hazard Statement(s)

Flammable solid.
Causes skin irritation.



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Number:
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04/08/11

Page 2 of 7

MATERIAL SAFETY DATA SHEET

Causes serious eye damage.

May cause respiratory irritation.

Precautionary Statement(s)

Keep away from heat/sparks/open flames/hot surfaces- No smoking.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Rinse with water for several minutes. Remove contact lenses.

HMIS Ratings

Physical	3
Flammability	0
Health	2

NFPA Codes

Fire	0
Health	2
Reactivity	3

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 the skin. Causes skin irritation.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition / Information on Ingredients

EC No. 231-114-0

4 FIRST AID MEASURES

First Aid Measures

Eyes	Flush eye with water for 15 minutes. Get medical attention.
Ingestion	Do NOT induce vomiting. 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.
Additional Information	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.



Cambridge Isotope Laboratories, Inc.
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Number:
Issue Date

OSLM-4218
04/08/11

Page 3 of 7

MATERIAL 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.

Fire Fighting Procedures Use water spray to cool unopened containers.

6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures

Personal Precautions Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

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. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for Safe Storage

Storage Store at room temperature away from light and moisture.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

Personal Protection

Eyes - Face Wear safety glasses with side shields (or goggles) and a face shield.



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04/08/11

Page 4 of 7

MATERIAL SAFETY DATA SHEET

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	3,045 °C (5,513 °F) - lit
Boiling Point	5,027 °C (9,081 °F) - lit
Flashpoint	No data available
Flammability	The substance or mixture is a flammable solid with the subcategory 2
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Density	22.61 g/cm ³
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	Avoid Heat, Flames and Sparks.
Hazardous decomposition products	Formed under fire conditions: Nature of decomposition products not known.
Materials to avoid	Oxygen, Halogens, Phosphorous



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Number:
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OSLM-4218
04/08/11

Page 5 of 7

MATERIAL SAFETY DATA SHEET

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

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 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 Not available
Toxicity

Specific Target Organ Toxicity

Single Exposure Inhalation - May cause respiratory irritation

Repeated Exposure No data available

Other Information

RTECS RN1100000

12 ECOLOGICAL INFORMATION

Toxicity

Persistence and Not available
Degradability



Cambridge Isotope Laboratories, Inc.
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Number:
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OSLM-4218
04/08/11

Page 6 of 7

MATERIAL SAFETY DATA SHEET

Bioaccumulative Potential Not available

Mobility in Soil Not available

PBT and vPvB Assessment Not available

Other Adverse Effects Not available

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

UN Number 3089
Prop. Ship. Name Metal powders, flammable, n.o.s., (OSMIUM-187 METAL 187Os)
Hazard Class 4.1
Packing Group II
Marine Pollutant No
Poison Inhalation Hazard No

15 REGULATORY INFORMATION

Regulatory Information

Flammable solid, Irritant

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

Fire (Y/N) Y



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Number:
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OSLM-4218
04/08/11

Page 7 of 7

MATERIAL SAFETY DATA SHEET

Acute (Y/N) Y

STATE REGULATIONS

Massachusetts Right to Know No
Pennsylvania 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).

Wear suitable protective clothing, gloves and eye/face protection.

Risk Statements

Highly flammable.

Irritating to respiratory system and skin.

Risk of serious damage to eyes.

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.

Approved On 04/08/11
Version Number 1