

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description OSMIUM-187 METAL (1870s)

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

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.





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 2 Health

NFPA Codes

Fire 0 Health 2 3 Reactivity

Potential Health Effects

Causes eye irritation. Eyes

Ingestion May be harmful if swallowed.

May be harmful if inhaled. Causes respiratory tract irritation. Inhalation

Skin May be harmful if absorbed through the skin. Causes skin irritation.

COMPOSITION / INFORMATION ON INGREDIENTS 3

Composition / Information on Ingredients

EC No. 231-114-0

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 Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of

dangerous area. Information



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

Precautions 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 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.

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

Fammability 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/cm3
Solubility in Water No data available
Auto Ignition No data available

Temperature

10 STABILITY AND REACTIVITY

Stability and Reactivity

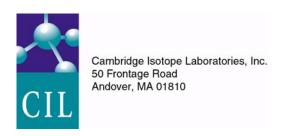
Chemical Stability Stable if stored under recommended conditions.

Conditions to Avoid
Avoid Heat, Flames and Sparks.

Hazardous decomposition products

Formed under fire conditions: Nature of decomposition products not known.

Materials to avoid Oxygen, Halogens, Phosphorous



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 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

Toxicity

Not available

Specific Target Organ Toxicity

Single Exposure Inhalation - May cause respiratory irritation

Repeated Exposure No data available

Other Information

RTECS RN1100000

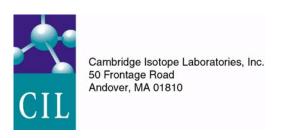
12 ECOLOGICAL INFORMATION

Toxicity

Persistance and

Not available

Degradability



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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

Metal powders, flammable, n.o.s., (OSMIUM-187 METAL 187Os) Prop. Ship. Name

Hazard Class 4.1 Packing Group Ш Marine Pollutant No Poison Inhalation No

Hazard

REGULATORY INFORMATION

Regulatory Information

Flammable solid, Irritant

SARA

15

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

Fire (Y/N)

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MATERIAL SAFETY DATA SHEET

Acute (Y/N) Υ

STATE REGULATIONS

Massachusetts No

Right to Know

Pennsylvania Right

to Know

New Jersey Right

to Know

Yes

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).

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