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MATERIAL SAFETY DATA SHEET

CHEMICAL PRODUCT AND COMPANY INFORMATION

CHROMIUM-52 METAL (52Cr) **Product Description**

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

Target Organ Effect

Target Organs

Liver, Kidney

GHS Label Information

Signal Word Warning

Hazards Identification

Environment

Hazard Statement(s)

Very toxic to aquatic life.

Precautionary Statement(s)

Avoid release to the environment.

HMIS Ratings

Chronic Health Physical 0

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MATERIAL SAFETY DATA SHEET

0 Flammability Health 0

NFPA Codes

Fire 0 Health 0 Reactivity

Potential Health Effects

Eyes Contact may cause eye irritation. Ingestion May be harmful if swallowed.

Inhalation May be harmful if inhaled. May cause respiratory tract irritation. May be harmful if absorbed through skin. May cause skin irritation. Skin

3 **COMPOSITION / INFORMATION ON INGREDIENTS**

Composition / Information on Ingredients

Chemical Formula Cr Molecular Weight 51.94 CAS No. 14092-98-9 EC No. 231-157-5

FIRST AID MEASURES

First Aid Measures

Flush eyes with water as a precaution. Eyes

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Get immediate medical attention.

Skin Wash with soap and plenty of water. Consult a physician.

Additional

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

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.

6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures

Personal Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure

Precautions adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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

Precautions

Methods and

materials for disp

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 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

OSHA PEL ACGIH TLV

CHROMIUM

TWA 1 mg/M³ 0.5 mg/M³

Personal Protecton

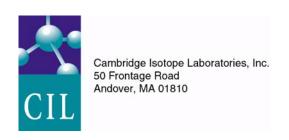
Eyes - Face Wear safety glasses with side shields (or goggles) and a face shield.

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 Chips

Color Light grey

pH No data available
Melting Point 1,857 °C (3,375 °F) - lit
Boiling Point 2,672 °C (4,842 °F) - lit

Flashpoint Not applicable Lower Explosion No data available

Limit

Upper Explosion No data available

Limit

Solubility in Water Insoluble

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

Hazardous Formed under fire conditions: Chromium oxides decomposition products

Materials to avoid Strong acids, Strong oxidizing agents

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

Carcinogenicity

Carcinogenicity - rabbit - Implant

Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Musculoskeletal:Tumors.

Carcinogenicity - rat - Implant

Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Blood:Lymphomas including Hodgkin's

disease.

Tumorigenic:Tumors at site or application.

This product is or contains a component that is not classifiable as to its carcinogenicity based on

its IARC, ACGIH, NTP, or EPA classification.

IARC No component of this 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 *** - STATEMENT 942 ***

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 No data available Repeated Exposure No data available

Signs and Symptoms of Exposure

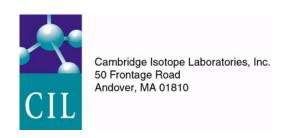
The chemical, physical, and toxicological properties have not been thoroughly investigated.

Other Information

RTECS GB4200000

12 ECOLOGICAL INFORMATION

Toxicity



Toxicity to Fish

LC50

Cyprinus carpio (Carp) - 14.3 mg/l - 96 h

Toxicity to Daphnia and Other Aquatic

Daphnia magna (Water flea) - 0.07 mg/l - 48 h

Invertebrates EC50 Longterm Aquatic Hazard NOEC

Pimephales promelas (fathead minnow) - 12 mg/l - 7 d

Persistance and Degradability

Not available

Bioaccumulative

Oncorhynchus mykiss (rainbow trout) - 30 d

Potential

Bioconcentration factor: 1.03 - 1.22

Mobility in Soil Not available

PBT and vPvB Assessment

Not available

Other Adverse

Effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms.

DISPOSAL CONSIDERATIONS 13

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

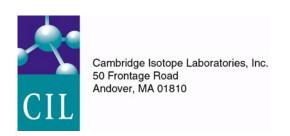
Not dangerous goods.

Notes

15 **REGULATORY INFORMATION**

Regulatory Information

Target Organ Effect



SARA

Sara 302

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

Component

Sara 313

Yes

Component

SARA 311/312 Hazards

Chronic (Y/N) Υ

STATE REGULATIONS

Massachusetts

Yes

Right to Know

Pennsylvania Right

Yes

to Know

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.

ΕU

Hazard Irritant

Safety Statements

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).

After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer).

Wear suitable protective clothing.

Risk Statements

Irritating to eyes, respiratory system and skin.

May cause sensitisation by skin contact.

OTHER INFORMATION 16

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 04/25/11 2

Version Number