

SAFETY DATA SHEET

Version 3.5

Revision Date 06/28/2014

Print Date 12/19/2014

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Thorium oxide

Product Number : T1055-T1056

Brand : IBI Labs

CAS-No. : 1314-20-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : IBI Labs

3495 N. Dixie Hwy. Unit # 8

Boca Raton, FL 33431

USA

Telephone : +1 561-826-0061

Fax : +1-561-892-8450

1.4 Emergency telephone number

Emergency Phone # : (561) 826-0061

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

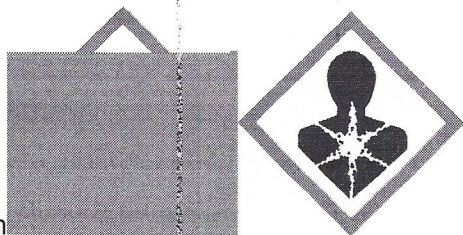
Acute toxicity, Dermal (Category 3), H311

Carcinogenicity (Category 1B), H350

Specific target organ toxicity – repeated exposure (Category 2), H373

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word Danger

Hazard statement(s)

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H350 May cause cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P322 Specific measures (see supplemental first aid instructions on this label).

P330 Rinse mouth.

P361 Remove/Take off immediately all contaminated clothing.

P363 Wash contaminated clothing before reuse.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Radioactive.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : O₂Th

Molecular Weight : 264.04 g/mol

CAS-No. : 1314-20-1

EC-No. : 215-225-1

Component Classification Concentration

Thorium dioxide

Acute Tox. 3; Carc. 1B; STOT

RE 2; H301 + H311 + H331,

H350, H373

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For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

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

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES**5.1 Extinguishing media****Suitable extinguishing media**

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

5.2 Special hazards arising from the substance or mixture

Metal oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE**7.1 Precautions for safe 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.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

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

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance Form: powder Colour: white
- b) Odour no data available
- c) Odour Threshold no data available
- d) pH no data available

- e) Melting point/freezing point no data available
- f) Initial boiling point and boiling range no data available
- g) Flash point no data available
- h) Evaporation rate no data available
- i) Flammability (solid, gas) no data available
- j) Upper/lower flammability or explosive limits no data available
- k) Vapour pressure no data available
- l) Vapour density no data available
- m) Relative density no data available
- n) Water solubility no data available
- o) Partition coefficient: octanol/water no data available
- p) Auto-ignition temperature no data available
- q) Decomposition temperature no data available
- r) Viscosity no data available
- s) Explosive properties no data available
- t) Oxidizing properties no data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

Other decomposition products – no data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity**Carcinogenicity**

Possible human carcinogen

IARC: No component of this product present at levels greater than or equal to 0.1% is identified 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 identified as a carcinogen or potential carcinogen by ACGIH.

NTP: Known to be human carcinogen (Thorium dioxide)

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

no data available

no data available

Specific target organ toxicity – single exposure

no data available

Specific target organ toxicity – repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

no data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach – Irregularities – Based on Human Evidence

Stomach – Irregularities – Based on Human Evidence

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Contact a licensed professional waste disposal service to dispose of this material. After use follow local procedures for radioactive waste. Consult local, state, and federal regulations on the disposal of radioactive waste. Observe all federal, state, and local environmental regulations.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2910 Class: NONE

Proper shipping name: Radioactive material, excepted package-limited quantity of material

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN number: 2910 Class: 7 EMS-No: F-I, S-S

Proper shipping name: RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – LIMITED QUANTITY OF MATERIAL

Marine pollutant: No

IATA

UN number: 2910 Class: 7.4H

Proper shipping name: Radioactive material, excepted package – limited quantity of material

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Thorium dioxide

CAS-No.

1314-20-1

Revision Date

1993-04-24

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Thorium dioxide

CAS-No.

1314-20-1

Revision Date

1993-04-24

Pennsylvania Right To Know Components

Thorium dioxide

CAS-No.

1314-20-1

Revision Date

1993-04-24

New Jersey Right To Know Components

Thorium dioxide

CAS-No.

1314-20-1

Revision Date

1993-04-24

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Thorium dioxide

CAS-No.

1314-20-1

Revision Date

2007-09-28

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity

Carc. Carcinogenicity

H301 Toxic if swallowed.

H301 + H311 +

H331

Toxic if swallowed, in contact with skin or if inhaled

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H350 May cause cancer.

HMIS Rating

Health hazard: 2

Chronic Health Hazard: *

Flammability: 0

Physical Hazard 0

NFPA Rating

Health hazard: 2

Fire Hazard: 0

Reactivity Hazard: 0

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. IBI Labs and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Preparation Information

IBI Labs

Product Safety – Americas Region

1-561-826-0061

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IBI Labs is the leading national and international manufacturer and worldwide distributor of specialty Uranium and Thorium compounds for research, medical products and related industrial production and applications. IBI Labs specializes in the production of Uranyl Acetate, Uranyl Nitrate, Uranium Oxides, Uranium Carbides and other fine specialty Uranium compounds manufactured exclusively from natural or depleted Uranium U-238. In addition, IBI Labs is the leading provider of Thorium compounds such as Thorium Oxide, Thorium Nitrate and Thorium Fluoride manufactured from natural Th-232.

Should you require further information and pricing regarding our fine specialty chemical compounds formulated from depleted uranium then please contact our manufacturing department by submitting the following form.