

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Tellurium Ingot, Enriched Tellurium
Chemical Formula	Te
Molecular Weight	127.60 g/mol
CAS No.	13494-80-9
EINECS/ELINCS No.	236-813-4
Synonyms	Telloy, Tellur (Polish), Tellurium (ACGIH:OSHA), Tellurium Element
Supplier Address*	ISO FLEX USA PO Box 472615 San Francisco CA 94147 United States
Telephone	+1 415-440-4433
Fax	+1 415-563-4433
Emergency Phone Number (both supplier and manufacturer)	Infotrac/ +1 800-535-5053 *May include subsidiaries or affiliate companies/divisions
Email	iusa@isoflex.com
Website	www.isoflex.com
Preparation Information	ISO FLEX USA Product Safety +1 415-440-4433

2. HAZARDS IDENTIFICATION

Emergency Overview:

Flammable (USA)
Highly flammable (EU)
Highly toxic (USA)
Very toxic (EU)
Very toxic if swallowed, inhaled, or in contact with skin

Target Organs:

Central nervous system
Keep away from sources of ignition – NO SMOKING
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
Take off immediately all contaminated clothing
Wear suitable protective clothing, gloves and eye/face protection

NFPA Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 2 Flammability = 0 Reactivity = 0



HMIS Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 2 Flammability = 0 Physical Hazard = 0

HEALTH HAZARD	2
FLAMMABILITY	0
PHYSICAL HAZARD	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Name	Tellurium Ingot, Enriched Tellurium
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4. FIRST AID MEASURES

<i>Ingestion</i>	If swallowed, wash out mouth with water, provided person is conscious. Call a physician. Never give anything by mouth to an unconscious person.
<i>Inhalation</i>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
<i>Dermal Exposure</i>	In case of contact, immediately wash skin with soap and copious amounts of water.
<i>Eye Exposure</i>	Contamination of the eyes should be treated by immediate and prolonged irrigation with copious amounts of water. Assure adequate flushing of the eyes by separating the eyelids with fingers.
<i>Additional Information</i>	Most important symptoms, and effects both acute and delayed, include nausea, headache, vomiting, and central nervous system depression.

5. FIREFIGHTING MEASURES

<i>Suitable Extinguishing Media</i>	Use water spray, alcohol resistant foam, dry chemical powder or carbon dioxide.
<i>Special Firefighting Procedures</i>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<i>Special Hazards Arising from the Substance</i>	Tellurium oxides
<i>Unusual Fire and Explosions Hazards</i>	This material, like most materials in powder form, is capable of creating a dust explosion. Flammable solid. Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

<i>Personal Precautions</i>	Evacuate area. Shut off all sources of ignition. Use non-sparking tools. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
<i>Environmental Precautions</i>	Do not let product enter drains.
<i>Methods for Cleaning Up</i>	Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

<i>Handling</i>	Avoid contact with skin and eyes, and formation of dusts and aerosols.
<i>Storage</i>	Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<i>Engineering Controls</i>	Workplace Control Parameters: TWA - 0.1mg/m ³ - UK Workplace Exposure Limits: EH40 WEL 0 Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.
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Personal Protective Equipment

<i>Respirators</i>	Wear appropriate NIOSH/MSHA-approved respirator. Use only in a chemical fume hood. Do not breathe dust.
<i>Hand</i>	Wear chemical-resistant gloves.
<i>Eye</i>	Wear safety goggles, face shield, other protective clothing. Safety shower and eye bath. Do not get in eyes or on skin or clothing.
<i>Hygiene Measures</i>	Wash thoroughly after handling. Remove and wash contaminated clothing promptly.
<i>General</i>	Avoid prolonged or repeated exposure. Keep tightly closed. Keep away from heat, sparks and open flame. Avoid contact with acid.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Color	Silvery-white or dark gray pieces
Odor	Odorless

Safety Data

Boiling Point:	990 °C	Melting Point:	450 °C
Specific Gravity:	N/A	Relative Density:	6.24g/mL at 25 °C
% Volatiles:	N/E or N/A	Solubility in H ₂ O:	Insoluble

10. STABILITY AND REACTIVITY

<i>Incompatible Materials</i>	Zinc, cadmium, sodium, potassium, strong acids, strong bases, halogens
<i>Hazardous Combustion or Decomposition Products</i>	Nature of decomposition products not known

11. TOXICOLOGICAL INFORMATION

<i>Acute Toxicity</i>	LD50 Oral - Rat - 83 mg/kg May be fatal if inhaled, swallowed, or absorbed through skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.
Carcinogenicity	
<i>IARC</i>	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen.
<i>Reproductive Toxicity</i>	Reproductive toxicity - Rat - Intramuscular
<i>Effects on Fertility</i>	Post-implantation mortality (dead or resorbed implants per total number of implants). Specific Developmental Abnormalities: central nervous system.
<i>Effects on Embryo or Fetus</i>	Developmental Toxicity - Rat - Oral Fetotoxicity (except death). Specific Developmental Abnormalities: musculoskeletal system. Effect on Newborn: Other neonatal measure or effects.
<i>Specific Developmental Abnormalities</i>	Developmental Toxicity - Rat - Oral Specific Developmental Abnormalities: central nervous system. Developmental Toxicity - Rat - Oral Craniofacial (including nose and tongue). Musculoskeletal system.
<i>Other</i>	Exposure can cause nausea, headache and vomiting, central nervous system depression

12. ECOLOGICAL INFORMATION

<i>Toxicity</i>	Do not empty into drains. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
<i>Persistence and Degradability</i>	Insoluble in water
<i>Bioaccumulation/Accumulation</i>	No information available
<i>Mobility</i>	Not likely mobile in the environment due to its low water solubility

13. DISPOSAL CONSIDERATIONS

<i>Product</i>	Material in the elemental state should be recovered for reuse or recycling. Contact licensed professional waste disposal service to dispose of this material. Dissolve the material in a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.
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14. TRANSPORT INFORMATION**DOT**

Proper Shipping Name None

This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

15. REGULATORY INFORMATION**U.S. Federal Regulations**

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazards Acute Health Hazard, Chronic Health Hazard

Clean Water Act Not applicable

Clean Air Act Not applicable

OSHA Not applicable

CERCLA Not applicable

WHMIS Hazard Class D1A Very toxic material

Massachusetts Right to Know Components No components are subject to the Massachusetts Right to Know Act.

New Jersey Right to Know Components No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know Components No components are subject to the Pennsylvania Right to Know Act.

Rhode Island Right to Know Components No components are subject to the Rhode Island Right to Know Act.

California Prop. 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Prepared By ISOFLEX USA
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San Francisco CA 94147
United States

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ISOFLEX USA's Commonly Used Abbreviations and Acronyms*

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
ALARA	As Low As Is Reasonably Achievable
AMU	Atomic Mass Unit
ANSI	American National Standards Institute
BLS	Basic Life Support
CAM	Continuous Air Monitor
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CEN	European Committee for Standardization
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLP	Classification, Labelling and Packaging (European Union)
CPR	Controlled Products Regulations (Canada)
CWA	Clean Water Act (USA)
DAC	Derived Air Concentration (USA)
DOE	United States Department of Energy (USA)
DOT	United States Department of Transportation (USA)
DSL	Domestic Substances List (Canada)
EC50	Half Maximal Effective Concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
EHS	Environmentally Hazardous Substance
ELINCS	European List of Notified Chemical Substances
EMS	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency (USA)
EPCRA	Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System (USA)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Containers
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life or Health
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
LDLO	Lethal Dose Low
LOEC	Lowest-Observed-Effective Concentration
MARPOL	International Convention for the Prevention of Pollution from Ships
MSHA	Mine Safety and Health Administration (USA)
NCRP	National Council on Radiation Protection & Measurements (USA)
NDSL	Non-Domestic Substances List (Canada)
NFPA	National Fire Protection Association (USA)
NIOSH	National Institute for Occupational Safety and Health (USA)
NOEC	No Observed Effect Concentration
N.O.S.	Not Otherwise Specified
NRC	Nuclear Regulatory Commission (USA)
NTP	National Toxicology Program (USA)
OSHA	Occupational Safety and Health Administration (USA)
PBT	Persistent Bioaccumulative and Toxic Chemical
PEL	Permissible Exposure Limit
PIH	Poisonous by Inhalation Hazard
RCRA	Resource Conservation and Recovery Act (USA)
RCT	Radiation Control Technician
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe)
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act (USA)
TDG	Transportation of Dangerous Goods (Canada)
TIH	Toxic by Inhalation Hazard
TLV	Threshold Limit Value

TPQ	Threshold Planning Quantity
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
UN	United Nations (Number)
VOC	Volatile Organic Compound
vPvB	Very Persistent Very Bioaccumulative Chemical
WGK	Wassergefährdungsklassen (Germany: Water Hazard Classes)
WHMIS	Workplace Hazardous Materials Information System

*One or more of the above-listed items may not appear in this document.

General Disclaimer

For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between ISOFLEX USA (or any of its affiliates and subsidiaries) and the purchaser.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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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. ISOFLEX shall not be held liable for any damage resulting from handling or from contact with the above product.

The logo for ISO FLEX features the word "ISO FLEX" in a bold, red, sans-serif font. A large, light blue, curved swoosh or arc is positioned behind the text, starting from the left and curving upwards and then downwards to the right, partially overlapping the letters.