

SAFETY DATA SHEET

Section 1: Identification

Product name: Tellurium (powder)
Product use: For laboratory research purposes.
Supplier: Trace Sciences International
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CANADA
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Section 2: Hazard(s) Identification

2.1 GHS Classification

Acute toxicity, Inhalation (Category 4), H332
Skin sensitization (Sub-category 1B), H317
Reproductive toxicity (Category 1B), H360
Effects on or via lactation, H362
Long-term (chronic) aquatic hazard (Category 4), H413

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s):

H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H360 May damage fertility or the unborn child.
H362 May cause harm to breast-fed children.
H413 May cause long lasting harmful effects to aquatic life.

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.
P263 Avoid contact during pregnancy and while nursing.
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.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

Section 3: Composition/ Information on Ingredients

Formula : Te
Molecular Weight : 127.60 g/mol

| Material | CAS-No. | EC-No. | Index-No. | Concentration |
|-----------|------------|-----------|-----------|---------------|
| Tellurium | 13494-80-9 | 236-813-4 | - | <=100% |

Section 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 person out of dangerous area if safe to do so.

If inhaled

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

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water for at least 15 minutes. Use chemical shower if available. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contacts if possible.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5: Fire-Fighting Measures

5.1 Conditions of flammability

No data available

5.2 Suitable extinguishing media

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

5.3 Hazardous combustion products

Hazardous decomposition products formed under fire conditions: Tellurium oxides

5.4 Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.5 Further information

No data available

Section 6: Accidental Release Measures

6.1 Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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

Sweep up and shovel. 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. Keep in suitable, closed containers for disposal.

Section 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.

7.2 Conditions for safe storage

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

Section 8: Exposure Controls/Personal Protection

8.1 Components with workplace control parameters

| Components | CAS-No. | Value | Control parameters | Basis |
|------------|------------|-------|-----------------------|---|
| Tellurium | 13494-80-9 | TWA | 0.1 mg/m ³ | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| | | TWA | 0.1 mg/m ³ | Canada. British Columbia OEL |
| | | TWAEV | 0.1 mg/m ³ | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| | | TWA | 0.1 mg/m ³ | USA. ACGIH Threshold Limit Values (TLV) |

8.2 Personal protective equipment

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).

Hand 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.

Eye protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Specific engineering controls

Use mechanical exhaust or laboratory fume hood to avoid exposure.

Section 9: Physical and Chemical Properties

Appearance

| | |
|--------|--------|
| Form | Powder |
| Colour | Gray |

Safety Data

| | |
|--|-------------------------------|
| pH | No data available |
| Melting point/freezing point | 450 °C (842 °F) |
| Boiling point | 990 °C (1,814 °F) |
| Flash point | Not applicable |
| Flammability (solid, gas) | The product is not flammable. |
| Ignition temperature | No data available |
| Auto-ignition temperature | No data available |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Vapour pressure | No data available |
| Density | 6.24 g/mL at 25 °C (77 °F) |
| Water solubility | 0.0017 g/l at 20 °C (68 °F) |
| Partition coefficient: n-octanol/water | No data available |
| Relative vapour density | No data available |
| Odour | No data available |
| Odour Threshold | No data available |
| Evaporation rate | No data available |

Section 10: Stability and Reactivity

10.1 Chemical stability

Stable under recommended storage conditions

10.2 Possibility of hazardous reactions

No data available

10.3 Conditions to avoid

No data available

10.4 Materials to avoid

Zinc, cadmium, sodium/sodium oxides, potassium, strong acids, strong bases, halogens

10.5 Hazardous decomposition products

See section 5

Section 11: Toxicological Information

Acute toxicity

Oral

LD50 Oral - Rat - male and female - > 5,000 mg/kg
(OECD Test Guideline 401)

Inhalation

LC50 Inhalation - Rat - male and female - 4 h - > 2.42 mg/l - aerosol
(OECD Test Guideline 403)

Dermal

No data available

Other information on acute toxicity

No data available

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)
Result: No skin irritation
(OECD Test Guideline 439)

Serious eye damage/eye irritation

Eyes - Chicken eye
Result: No eye irritation
(OECD Test Guideline 438)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse
Result: positive
(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test
Test system: Escherichia coli/Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Carcinogenicity

No data available

Reproductive toxicity

May damage the unborn child. Suspected of damaging fertility. Studies indicating a hazard to babies during the lactation period

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Signs and Symptoms of Exposure

Nausea, headache, vomiting, central nervous system depression

Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - \geq 100 mg/kg

RTECS: WY2625000

Section 12: Ecological Information

12.1 Toxicity

| | |
|---|--|
| Toxicity to fish | Semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - $>$ 100 mg/l - 96 h (OECD Test Guideline 203) |
| Toxicity to daphnia and other aquatic invertebrates | Static test EC50 - Daphnia magna (Water flea) - 5.79 mg/l - 48 h (OECD Test Guideline 202) |
| Toxicity to algae | Static test ErC50 - Pseudokirchneriella subcapitata - $>$ 11.7 mg/l - 72 h (OECD Test Guideline 201) |
| Toxicity to bacteria | Static test EC50 - activated sludge - 320 mg/l - 3 h (OECD Test Guideline 209) |

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 PBT and vPvB assessment

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

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

Section 13: Disposal Considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

Section 14: Transport Information

IATA

Not dangerous good

Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

Section 16: Other Information

Further information

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