# Safety data sheet
## according to 1907/2006/EC, Article 31

*Printing date 18.07.2021* *Revision: 18.07.2021*

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name: Tellurium broken ingot (99.9999%)**

· **Item number:** 52-0030
· **CAS Number:**
13494-80-9
· **EC number:**
236-813-4
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Strem Chemicals, Inc.
7 Mulliken Way
NEWBURYPORT, MA 01950
USA
info@strem.com

· **Further information obtainable from:** Technical Department
· **1.4 Emergency telephone number:**
EMERGENCY: CHEMTREC: + 1 (800) 424-9300
During normal opening times: +1 (978) 499-1600

## SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.
Acute Tox. 3 H331 Toxic if inhaled.

GHS08 health hazard

Repr. 1A H360 May damage fertility or the unborn child.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS06 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**
tellurium
· **Hazard statements**
H301+H331 Toxic if swallowed or if inhaled.

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H360 May damage fertility or the unborn child.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**
· **CAS No. Description**
13494-80-9 tellurium
· **Identification number(s)**
· **EC number:** 236-813-4

## SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Remove breathing equipment only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Do not induce vomiting; call for medical help immediately.
· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

## SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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· **5.3 Advice for firefighters**
· **Protective equipment:** Mouth respiratory protective device.

## SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
· **6.2 Environmental precautions:** No special measures required.
· **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

## SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
· **Information about fire - and explosion protection:** Keep respiratory protective device available.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep container tightly sealed.
· **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

| · **Ingredients with limit values that require monitoring at the workplace:** | |
|---|---|
| **13494-80-9 tellurium** | |
| WEL | Long-term value: 0.1 mg/m³<br>as Te |

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
· **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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· **Protection of hands:**

*Protective gloves*

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*
*Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*
*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

· **Material of gloves**
*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.*

· **Penetration time of glove material**
*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

· **Eye protection:** *Safety glasses*

| | |
|---|---|
| · **9.1 Information on basic physical and chemical properties** | |
| · **General Information** | |
| · **Appearance:** | |
| **Form:** | *Chunks* |
| **Colour:** | *Grey* |
| · **Odour:** | *Odourless* |
| · **Odour threshold:** | *Not determined.* |
| · **pH-value:** | *Not applicable.* |
| · **Change in condition** | |
| **Melting point/freezing point:** | *449.5 °C* |
| **Initial boiling point and boiling range:** | *989.8 °C* |
| · **Flash point:** | *Not applicable.* |
| · **Flammability (solid, gas):** | *Not determined.* |
| · **Ignition temperature:** | |
| **Decomposition temperature:** | *Not determined.* |
| · **Auto-ignition temperature:** | *Not determined.* |
| · **Explosive properties:** | *Product does not present an explosion hazard.* |
| · **Explosion limits:** | |
| **Lower:** | *Not determined.* |
| **Upper:** | *Not determined.* |
| · **Vapour pressure:** | *1 hPa* |
| · **Density at 20 °C:** | *6.24 g/cm³* |
| · **Relative density** | *Not determined.* |
| · **Vapour density** | *Not applicable.* |
| · **Evaporation rate** | *Not applicable.* |
| · **Solubility in / Miscibility with water:** | *Insoluble.* |
| · **Partition coefficient: n-octanol/water:** | *Not determined.* |
| · **Viscosity:** | |
| **Dynamic:** | *Not applicable.* |

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| | |
|---|---|
| **Kinematic:** | Not applicable. |
| · **Solvent content:** | |
| **Organic solvents:** | 0.0 % |
| **VOC (EC)** | 0.00 % |
| **Solids content:** | 100.0 % |
| · **9.2 Other information** | No further relevant information available. |

## SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity**
Toxic if swallowed or if inhaled.

| · **LD/LC50 values relevant for classification:** | | |
|---|---|---|
| Oral | LD50 | 67 mg/kg (rabbit) |

| **13494-80-9 tellurium** | | |
|---|---|---|
| Oral | LD50 | 83 mg/kg (rat) |

· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity**
May damage fertility or the unborn child.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:** Not known to be hazardous to water.

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· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

| | |
|---|---|
| · **14.1 UN-Number** | |
| · **ADR, IMDG, IATA** | UN3288 |
| · **14.2 UN proper shipping name** | |
| · **ADR** | 3288 TOXIC SOLID, INORGANIC, N.O.S. |
| · **IMDG, IATA** | TOXIC SOLID, INORGANIC, N.O.S. |
| · **14.3 Transport hazard class(es)** | |
| · **ADR, IMDG** | |


| | |
|---|---|
| · **Class** | 6 |
| · **Label** | 6.1 |
| · **IATA** | |


| | |
|---|---|
| · **Class** | 6.1 Toxic substances. |
| · **Label** | 6.1 |
| · **14.4 Packing group** | |
| · **ADR, IMDG, IATA** | III |
| · **14.5 Environmental hazards:** | |
| · **Marine pollutant:** | No |
| · **14.6 Special precautions for user** | Not applicable. |
| · **Danger code (Kemler):** | 60 |
| · **EMS Number:** | F-A,S-A |
| · **Stowage Category** | A |
| · **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** | Not applicable. |

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· **Transport/Additional information:**

| | |
|---|---|
| · **ADR** | |
| · **Limited quantities (LQ)** | 5 kg |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 g<br>Maximum net quantity per outer packaging: 1000 g |
| · **Transport category** | 2 |
| · **Tunnel restriction code** | E |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 5kg |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 g<br>Maximum net quantity per outer packaging: 1000 g |
| · **UN "Model Regulation":** | UN 3288 TOXIC SOLID, INORGANIC, N.O.S., 6.1, III |

## SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** Substance is not listed.
· **Seveso category** H2 ACUTE TOXIC
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Technical Department.
· **Contact:** Technical Director
· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity – Category 3
Repr. 1A: Reproductive toxicity – Category 1A