

Zinc Telluride	Pricing >
Zinc Telluride Sputtering Target	Pricing >
Linear Formula	ZnTe
Pubchem CID	3362486
MDL Number	MFCD00043079
EC No.	N/A
IUPAC Name	telluroxozinc
Beilstein/Reaxys No.	N/A
SMILES	[Te]=[Zn]
Inchl Identifier	InChI=1S/Te.Zn
Inchl Key	NSRBDSZKIKAZHT-UHFFFAOYSA-N
Signal Word	Danger
Hazard Statements	H330
Hazard Codes	T
Risk Codes	N/A
Safety Statements	25
RTECS Number	45
Transport Information	UN 3284 6.1/PG 2
WGK Germany	3

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SAFETY DATA SHEET

Date Accessed: 04/29/2024

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SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #1315-11-3

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.

Los Angeles, CA 90024

Tel: +1 310-208-0551

Fax: +1 310-208-0351

Emergency telephone number:

Domestic, North America +1 800-424-9300

International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in
accordance with 29 CFR 1910 (OSHA HCS)

GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Hazards not otherwise classified

No data available

GHS label elements

GHS label elements, including precautionary
statements

Hazard pictograms



GHS07

Signal word

Warning

Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

Precautionary statements

P261 Avoid breathing

dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P304+P340 IF INHALED: Remove person to fresh air
and keep comfortable for breathing.

P301+P312 IF SWALLOWED: Call a POISON
CENTER/doctor/.../if you feel unwell.

P312 Call a POISON CENTER/doctor/.../if you feel
unwell.

P501 Dispose of contents/container in accordance
with local/regional/
national/international regulations.

WHMIS classification

Not controlled

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH

FIRE

REACTIVITY

2

0

1
Health (acute effects) = 2
Flammability = 0
Physical Hazard = 1
Other hazards
Results of PBT and vPvB assessment
PBT:
N/A
vPvB:
N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS No. / Substance Name:
1315-11-3 Zinc telluride
Identification number(s):
EC number:
215-260-2

SECTION 4. FIRST AID MEASURES

Description of first aid measures
If inhaled:
Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
In case of skin contact:
Immediately wash with soap and water; rinse thoroughly.
Seek immediate medical advice.
In case of eye contact:
Rinse opened eye for several minutes under running water. Consult a physician.
If swallowed:
Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and delayed
No data available
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents
Product is not flammable. Use fire-fighting measures

that suit the surrounding fire.

Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:

Tellurium dioxide (TeO₂)

Hydrogen telluride

Zinc oxide

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow product to enter drains, sewage systems, or other water courses.

Methods and materials for containment and cleanup:

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Prevention of secondary hazards:

No special measures required.

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

Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires:

The product is not flammable

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage

facility:

Do not store together with acids.

Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s)

No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

1315-11-3 Zinc telluride (100.0%)

TLV (USA) Long-term value: 0.1 mg/m³
as Te

Additional information:

No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Recommended filter device for short term use:

Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protection of hands:

Impervious gloves

Inspect gloves prior to use.

Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.

Material of gloves

Butyl rubber, BR

Penetration time of glove material (in minutes)
No data available
Eye protection:
Safety glasses
Body protection:
Protective work clothing

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Various forms (powder/flake/crystalline/beads, etc.)

Color: Red

Odor: Odorless

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 1240 °C (2264 °F)

Boiling point/Boiling range: No data available

Sublimation temperature / start: No data available

Flammability (solid, gas)

No data available.

Ignition temperature: No data available

Decomposition temperature: No data available

Autoignition: No data available.

Danger of explosion: No data available.

Explosion limits:

Lower: No data available

Upper: No data available

Vapor pressure: N/A

Density at 20 °C (68 °F): 6.34 g/cm³ (52.907 lbs/gal)

Relative density

No data available.

Vapor density

N/A

Evaporation rate

N/A

Solubility in Water (H₂O): Insoluble

Partition coefficient (n-octanol/water): No data available.

Viscosity:

Dynamic: N/A

Kinematic: N/A

Other information

No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability
Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions
Reacts with strong oxidizing agents
Conditions to avoid
No data available
Incompatible materials:
Acids
Oxidizing agents
Hazardous decomposition products:
Tellurium dioxide (TeO₂)
Hydrogen telluride
Zinc oxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
Harmful if inhaled.
Harmful if swallowed.
LD/LC₅₀ values that are relevant for classification:
No data
Skin irritation or corrosion:
May cause irritation
Eye irritation or corrosion:
May cause irritation
Sensitization:
No sensitizing effects known.
Germ cell mutagenicity:
No effects known.
Carcinogenicity:
EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available.
EPA-I: Data are inadequate for an assessment of human carcinogenic potential.
EPA-II: Inadequate information to assess carcinogenic potential.
Reproductive toxicity:
No effects known.
Specific target organ system toxicity - repeated exposure:
No effects known.
Specific target organ system toxicity - single exposure:
No effects known.
Aspiration hazard:
No effects known.
Subacute to chronic toxicity:

No effects known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Additional ecological information:

Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT:

N/A

vPvB:

N/A

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Consult official regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number

DOT, ADN, IMDG, IATA

N/A

UN proper shipping name

DOT, ADN, IMDG, IATA

N/A

Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA

Class
N/A
Packing group
DOT, IMDG, IATA
N/A
Environmental hazards:
N/A
Special precautions for user
N/A
Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code
N/A
Transport/Additional information:
DOT
Marine Pollutant (DOT):
No

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental
regulations/legislation specific for the substance or
mixture
GHS GHS label elements, including precautionary
statements
Hazard pictograms
GHS07
Signal word
Warning
Hazard statements
H302+H332 Harmful if swallowed or if inhaled.
Precautionary statements
P261 Avoid breathing
dust/fume/gas/mist/vapors/spray.
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and keep comfortable for breathing.
P301+P312 IF SWALLOWED: Call a POISON
CENTER/doctor/.../if you feel unwell.
P312 Call a POISON CENTER/doctor/.../if you feel
unwell.
P501 Dispose of contents/container in accordance
with local/regional/
national/international regulations.
National regulations
All components of this product are listed in the U.S.
Environmental Protection Agency Toxic Substances
Control Act Chemical substance Inventory.
All components of this product are listed on the
Canadian Non-Domestic Substances List (NDSL).
SARA Section 313 (specific toxic chemical listings)
1315-11-3 Zinc telluride
California Proposition 65

Prop 65 - Chemicals known to cause cancer
Substance is not listed.
Prop 65 - Developmental toxicity
Substance is not listed.
Prop 65 - Developmental toxicity, female
Substance is not listed.
Prop 65 - Developmental toxicity, male
Substance is not listed.
Information about limitation of use:
For use only by technically qualified individuals.
Other regulations, limitations and prohibitive
regulations
Substance of Very High Concern (SVHC) according to
the REACH Regulations (EC) No. 1907/2006.
Substance is not listed.
The conditions of restrictions according to Article 67
and Annex XVII of the Regulation (EC) No 1907/2006
(REACH) for the manufacturing, placing on the market
and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring
Authorisation for use)
Substance is not listed.
Chemical safety assessment:
A Chemical Safety Assessment has not been carried
out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No.
1907/2006 (REACH). 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.
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