

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: (4N) 99.99% Diisopropyl Telluride

Product Code: DIP-TE-04

CAS Number: 51112-72-2

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
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SECTION 2. HAZARDS IDENTIFICATION

Hazard - Risk Classification-

Flammable Liquids: Category 3

Acute Toxicity(Oral): Category 2

Skin Corrosion/Irritation: Category 2

Serious eye damage/eye irritation: Category 2A

Label elements including precautionary statements

Symbol:



Signal Word: Danger

Hazard - Risk Statement

H226 Flammable liquid and Vapor

H300

Fatal if swallowed

H315

Causes skin irritation

H319

Causes serious eye irritation

Precautionary Statement

Prevention

P210

Keep away from heat/sparks/open flames/hot surfaces.

No smoking.

P233

Keep container tightly closed.

P240

Ground/bond container and receiving equipment.

P241

Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P242

Use only non-sparking tools.

P243

Take precautionary measures against static discharge.

P264

Wash ... thoroughly after handling.

P270

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

P280

Wear protective gloves/protective clothing/eye protection/face protection.

Response

P321

Specific treatment (see ... on this label).

P330

Rinse mouth.

P362

Take off contaminated clothing and wash before reuse.

P301+P310

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

P302+P352

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

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P370+P378

In case of fire: Use ... for extinction.

Storage

P405

Store locked up.

P403+P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/container to ...

Other Hazard - Risk which are not included in the classification criteria (e.g. dust explosion hazard):

NFPA Rating

Health Hazard: 3

Fire: 3

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Diisopropyltelluride

Other name: 2,2'-tellurobispropane

Isopropyl telluride

Diisopropyltellurium

Diisopropyl telluride

Molecular Formula: $\text{Te}[\text{CH}(\text{CH}_3)_2]_2$

SECTION 4. FIRST AID MEASURES

Eye contact

Immediately flush the eyes with copious amounts of water for at least 10-15 minutes.

A victim may need assistance in keeping their eye lids open.

Get immediate medical attention.

Skin contact

Wash off immediately with plenty of water for at least 15 minutes.

Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.

Inhalation

Remove the victim to fresh air.

Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain.

In such cases seek immediate medical assistance.

Ingestion

Never give anything by mouth to an unconscious person.

Immediately give large quantities of water to drink.

Induce vomiting if person is conscious. Prevent aspiration of vomit.

Turn victim's head to the side.

Indication of immediate medical attention and notes for physician

Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated.

If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

SECTION 5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media

Suitable: carbon dioxide or dry powder

Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products):

Products of Combustion: CO, CO₂, tellurium oxide

Special protective equipment and precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection.

Use self-contained breathing apparatus and chemically protective clothing.

Remove all sources of ignition.

Evacuate personnel to safe areas.

Environmental precautions and protective procedures

Do not allow material to enter drains or streams.

Methods and materials for containment and cleaning up

Approach suspected leak areas with caution.

Absorb with inert absorbent materials such as: Dry sand, Vermiculite, Activated charcoal.

Place in appropriate chemical waste container.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes.

Avoid inhalation of vapor or mist.

Keep away from sources of ignition - No smoking.

Take measures to prevent the build up of electrostatic charge.

Keep away from incompatibles such as oxidizing agent, acids.

Conditions for safe storage (including any incompatibilities)

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

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Do not store together with oxidizing

Protect from humidity and water.

Keep container tightly sealed

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters (e.g. occupational exposure limit values, biological limit values)

Tellurium and compounds (as Te)

- ACGIH: TWA - 0.1 mg/m³

- OSHA: TWA - 0.1 mg/m³

- NIOSH: TWA - 0.1 mg/m³(10h)

Appropriate engineering controls

Maintain process conditions to ensure temperature is below product flashpoint.

Ensure adequate ventilation.

Provide readily accessible eye wash stations and safety showers.

Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure

Personal protective equipment

Respiratory protection

Use respirators and components tested and approved under appropriate government shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination(US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Eye protection

Chemical safety goggles.

Hands protection

Compatible chemical-resistant gloves.

Body protection Choose body protection according to the amount and concentration of the dangerous substance at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state: Liquid

Color: Yellow

Odor: garlic odor

Odor threshold: No data available

pH: No data available

Melting point/freezing point: -55oC

Initial boiling point and boiling range: 49oC at 14torr

Flashing point: 28 oC

Evaporation rate: No data available

Flammability (solid, gas): N/A

Upper/lower flammability or explosive limits: No data available

Vapor pressure: 2.6 torr at 20 oC

Solubility in water: Insoluble

Vapor density: No data available

Relative density: 1.365 g/ml

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Formula mass: 213.77 g/mol

SECTION 10. STABILITY AND REACTIVITY

Chemical stability and possibility of hazardous reactions: Stable in sealed containers stored under a dry inert atmosphere.

Possibility of hazardous reactions: Can decompose when exposed to light.

Conditions to avoid (e.g. static discharge, shock or vibration, etc) Incompatible materials: Heat, flames, light and sparks.

Incompatible materials: Strong oxidizing agents 10.5 Hazardous decomposition products: CO, CO₂, tellurium oxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure

No data available

Health hazards information

- Acute toxic: Tellurium and compounds (as Te)

Oral: 83 mg/Kg – Rat LD₅₀

67 mg/Kg – Rabbit LD₅₀

45 mg/Kg – Guinea pig LD₅₀

20 mg/Kg – Mouse LD₅₀

Dermal: No data available

Inhalation: No data available

- Skin corrosive/irritant: Can cause severe burns to the skin.
 - Serious eye damage/eye irritation: Can cause serious damage to eyes.
 - Respiratory sensitization: No data available
 - Skin sensitization: No data available
 - Carcinogenicity: No data available
 - Germ Cell Mutagenicity : No data available
 - Reproductive toxicity: No data available
 - Specific target organ toxicity (single exposure): No data available
 - Specific target organ toxicity (repeated exposure): No data available
 - Aspiration hazard: No data available
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SECTION 12. ECOLOGICAL INFORMATION

Aquatic and terrestrial ecotoxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal method

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

SECTION 14. TRANSPORT INFORMATION

UN number: 3284

UN proper shipping name: Tellurium compounds N.O.S. (Diisopropyltelluride)

Transport hazard class: 6.1

Packing group (if applicable): II

Marine pollution (yes/no): No data available

Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises: - F-A / S-A

SECTION 15. REGULATORY INFORMATION

Industrial Safety and Health Act: Exposure limits Setting materials

Toxic Chemical Control Act: Title compound not listed.

Dangerous Material Safety Control Act: Title compound not listed.

Wastes Management Act: Title compound not listed.

Other requirements in domestic and other countries

- EPCRA 302 regulations: Tellurium 500/10000 LBS TPQ

- EPCRA 304 regulations: Tellurium 1 LBS RQ

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. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.