# MATERION

# SAFETY DATA SHEET

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

1.1. Product identifier

**Trade name or** ZnTe-Cu2Te

designation of the mixture

SynonymsNone.Document number2EOMaterion Code2EO

**Issue date** 15-August-2016

Version number 04

**Revision date** 15-January-2018 **Supersedes date** 26-September-2017

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified usesNot available.Uses advised againstNone known.

1.3. Details of the supplier of the safety data sheet

**Supplier** 

**Company name** Materion Advanced Chemicals Inc.

**Address** 407 N. 13th Street

1316 W. St. Paul Avenue Milwaukee, WI 53233

United States

DivisionMilwaukeeTelephone414.212.0257

**e-mail** advancedmaterials@materion.com

Contact person Noreen Atkinson

1.4. Emergency telephone

number

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

## Classification according to Regulation (EC) No 1272/2008 as amended

**Health hazards** 

Acute toxicity, oral Category 3 H301 - Toxic if swallowed.

**Environmental hazards** 

Hazardous to the aquatic environment, acute Category 1 H400 - Very toxic to aquatic life.

aquatic hazard

Hazardous to the aquatic environment, Category 1 H410 - Very toxic to aquatic life

long-term aquatic hazard with long lasting effects.

**Hazard summary**Toxic if swallowed. Exposure to powder or dusts may be irritating to eyes, nose and throat.

Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects. The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate

1 / 12

could be generated.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** copper, Tellurium

**Hazard pictograms** 

The standard of the standard o

Material name: ZnTe-Cu2Te SDS EU

Signal word Danger **Hazard statements** Toxic if swallowed. H301 May cause an allergic skin reaction. H317 May cause respiratory irritation. H335 Very toxic to aquatic life. H400 Very toxic to aquatic life with long lasting effects. H410 **Precautionary statements Prevention** Minimise dust generation and accumulation. Do not breathe dust/fume. P260 Wash thoroughly after handling. P264 Do not eat, drink or smoke when using this product. P270 Avoid release to the environment. P273 Wear protective gloves/protective clothing/eye protection/face protection. P280 Response IF SWALLOWED: Immediately call a POISON CENTRE/doctor. P301 + P310 Rinse mouth. P330 IF exposed or concerned: Get medical advice/attention. P308 + P313 If skin irritation or rash occurs: Get medical advice/attention. P333 + P313 P391 Collect spillage. **Storage** Store away from incompatible materials. Store in a well-ventilated place. Keep container tightly closed. P403 + P233 Store locked up. P405 **Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations. P501 Supplemental label 33 % of the mixture consists of component(s) of unknown acute oral toxicity. 100 % of the information mixture consists of component(s) of unknown acute dermal toxicity. 100 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 98 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 98 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. For further information, please contact the Product Stewardship Department at +1.800.862.4118.

#### 2.3. Other hazards Not a PBT or vPvB substance or mixture.

# **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures

#### **General information**

| Chemical name   | %                      | CAS-No. / EC<br>No.     | REACH Registration No. | INDEX No.    | Notes |
|-----------------|------------------------|-------------------------|------------------------|--------------|-------|
| Tellurium       | 2 - 98                 | 13494-80-9<br>236-813-4 | -                      | -            |       |
| Classification: | Acute Tox. 3;H301      |                         |                        |              |       |
| Zinc            | 31                     | 7440-66-6<br>231-175-3  | -                      | 030-001-01-9 |       |
| Classification: | Water-React. 3;H261    |                         |                        |              | Т     |
| copper          | 3 - 2                  | 7440-50-8<br>231-159-6  | -                      | -            | M=100 |
| Classification: | Aquatic Chronic 1;H410 |                         |                        |              |       |

# List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The full text for all H-statements is displayed in section 16. **Composition comments** 

#### **SECTION 4: First aid measures**

**General information** Show this safety data sheet to the doctor in attendance.

Material name: ZnTe-Cu2Te SDS FU 2 / 12

#### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Do not rub eyes.

**Ingestion** Call a physician or poison control centre immediately. Do not induce vomiting without advice from

poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory

medical device.

4.2. Most important symptoms and effects, both

acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

Nausea. Dusts may irritate the respiratory tract, skin and eyes.

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim

under observation. Symptoms may be delayed.

# **SECTION 5: Firefighting measures**

**General fire hazards** No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing

media media Foam. Dry powder. Dry sand. Carbon dioxide (CO2).

Unsuitable extinguishing Water. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special firefighting procedures

Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

# **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Prevent product from entering drains. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

3 / 12

Material name: ZnTe-Cu2Te SDS FU

# **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

**7.3. Specific end use(s)** Not available.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### **Occupational exposure limits**

| Components  | Туре  | Value  | Form  |
|---|---|--|---|
| copper (CAS 7440-50-8)  | MAK   | 1 mg/m3  | Inhalable fraction.   |
| ,   |   | 0,1 mg/m3  | Fume and respirable dus   |
|   | STEL  | 4 mg/m3  | Inhalable fraction.   |
|   | 5 · <u>-</u> -  | 0,4 mg/m3  | Fume and respirable dus   |
| Tellurium (CAS 13494-80-9)  | MAK   | 0,1 mg/m3  | Inhalable fraction.   |
| Tellariam (CAS 13 13 1 00 3)  | STEL  | 0,5 mg/m3  | Inhalable fraction.   |
| Belgium. Exposure Limit Values.   |   | , 5.   |   |
| Components  | Туре  | Value  | Form  |
| copper (CAS 7440-50-8)  | TWA   | 1 mg/m3  | Dust and mist.  |
|   |   | 0,2 mg/m3  | Fume.   |
| Tellurium (CAS 13494-80-9)  | · · · · · · · · · · · · · · · · · · ·   |  |   |
| Bulgaria. OELs. Regulation No 13  | 3 on protection of workers a  | , -  | chemical agents at work   |
| Components  | Type  | Value  | chemical agents at work   |
| copper (CAS 7440-50-8)  | TWA   | 0,1 mg/m3  |   |
| Tellurium (CAS 13494-80-9)  | TWA   | 0,1 mg/m3  |   |
| Croatia. Dangerous Substance Ex   |   | , 5,   | 1 and 2 Narodno Novino  |
| 13/09   | xposure Limit values in the   | workplace (ELVS), Allilexes  | 1 and 2, Narourie Novine,   |
| Components  | Туре  | Value  | Form  |
| copper (CAS 7440-50-8)  | MAC   | 0,21 mg/m3   | Dust and fume.  |
| copper (CAS / <del>44</del> 0-50-8)   | 11/10   | -,   |   |
| copper (CAS 7440-50-8)  | STEL  | 2 mg/m3  | Dust and fume.  |
| Tellurium (CAS 13494-80-9)  |   |  | Dust and fume.  |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory  | STEL<br>MAC   | 2 mg/m3<br>0,1 mg/m3   |   |
| Tellurium (CAS 13494-80-9)  | STEL<br>MAC   | 2 mg/m3<br>0,1 mg/m3   |   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.   | STEL<br>MAC<br>atmosphere and dangerous   | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regu   | ulation, PI 311/73, as  |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.  Components  copper (CAS 7440-50-8)   | STEL<br>MAC<br>atmosphere and dangerous<br>Type<br>TWA  | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regu<br>Value  | ulation, PI 311/73, as<br>Form  |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.  Components   | STEL<br>MAC<br>atmosphere and dangerous<br>Type<br>TWA  | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regu<br>Value  | ulation, PI 311/73, as<br>Form  |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.  Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  | STEL MAC atmosphere and dangerous Type TWA ent Decree 361 Type  | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regularies<br>Value<br>0,2 mg/m3<br>Value  | Ilation, PI 311/73, as Form Fume. Form  |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.  Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme   | STEL MAC atmosphere and dangerous Type TWA ent Decree 361   | 2 mg/m3 0,1 mg/m3 substances in factories regularized Value 0,2 mg/m3 Value 2 mg/m3  | Form Form  Form  Dust.  |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.  Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling   | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regular<br>Value<br>0,2 mg/m3<br>Value<br>2 mg/m3<br>0,2 mg/m3   | Form Fume.  Form  Dust. Fume.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.  Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  | STEL MAC atmosphere and dangerous Type TWA ent Decree 361 Type  | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regular<br>Value<br>0,2 mg/m3<br>Value<br>2 mg/m3<br>0,2 mg/m3<br>1 mg/m3  | Form Fume.  Form  Dust. Fume. Dust. Dust. Dust. Dust.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)   | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA   | 2 mg/m3 0,1 mg/m3 substances in factories regularization Value  0,2 mg/m3  Value  2 mg/m3 0,2 mg/m3 1 mg/m3 0,1 mg/m3 0,1 mg/m3  | Form Fume.  Form  Dust. Fume.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended.  Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  | STEL MAC atmosphere and dangerous  Type  TWA ent Decree 361 Type  Ceiling  TWA  Ceiling   | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regular<br>Value<br>0,2 mg/m3<br>Value<br>2 mg/m3<br>0,2 mg/m3<br>1 mg/m3<br>0,1 mg/m3<br>0,5 mg/m3  | Form Fume.  Form  Dust. Fume. Dust. Dust. Dust. Dust.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)   | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA Ceiling TWA   | 2 mg/m3 0,1 mg/m3 substances in factories regularization Value  0,2 mg/m3  Value  2 mg/m3 0,2 mg/m3 1 mg/m3 0,1 mg/m3 0,1 mg/m3  | Form Fume.  Form  Dust. Fume. Dust. Dust. Dust. Dust.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Denmark. Exposure Limit Values   | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA   | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regular<br>Value<br>0,2 mg/m3<br>Value<br>2 mg/m3<br>0,2 mg/m3<br>1 mg/m3<br>0,1 mg/m3<br>0,5 mg/m3<br>0,1 mg/m3   | Form Fume.  Form  Dust. Fume. Dust. Dust. Dust. Dust.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Denmark. Exposure Limit Values Components  | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA Ceiling TWA Type  | 2 mg/m3<br>0,1 mg/m3<br>substances in factories regionally<br>Value<br>0,2 mg/m3<br>Value<br>2 mg/m3<br>0,2 mg/m3<br>1 mg/m3<br>0,1 mg/m3<br>0,5 mg/m3<br>0,1 mg/m3<br>Value   | Form  Dust. Fume. Dust. Fume. Fume. Fume. Fume. Fume. Fume. Fume. Fume.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)   | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA   | 2 mg/m3 0,1 mg/m3 substances in factories regularized by the substances of substances  | Form  Dust. Fume. Dust. Fume. Dust. Fume. Dust. Fume. Dust. Fume. Dust. Fume.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Denmark. Exposure Limit Values Components  copper (CAS 7440-50-8)  | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA  Ceiling TWA  Type TUA                                  | 2 mg/m3 0,1 mg/m3 substances in factories regressivate  Value  0,2 mg/m3  Value  2 mg/m3 0,2 mg/m3 1 mg/m3 0,1 mg/m3 0,1 mg/m3 0,1 mg/m3 0,1 mg/m3 0,1 mg/m3 0,1 mg/m3   | Form  Dust. Fume. Dust. Fume.  Fume.  Dust. Fume.  Dust. Fume.  Fume.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Denmark. Exposure Limit Values Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA  Criling TWA  Type TUA  Type  TLV  TLV                  | 2 mg/m3 0,1 mg/m3 substances in factories regularized by the substances of the subst | Form  Dust. Fume. Dust. Fume.  Fume.  Dust. Fume. Dust. Fume. Dust. Fume. Dust. Fume.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Denmark. Exposure Limit Values Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Estonia. OELs. Occupational Exposeptember 2001)                     | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA  Criling TWA  Type TUA  Type  TLV  TLV                  | 2 mg/m3 0,1 mg/m3 substances in factories regularized by the substances of factories regularized by the substance of fact | Form  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Form  Dust. Form  Dust. Form  Dust. Form  Dust. Fume. Dust. Fume. Dust. Fume. Dust. |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Denmark. Exposure Limit Values Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Tellurium (CAS 13494-80-9)  Estonia. OELs. Occupational Experiments | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA  Criling TWA  Type TUA  Type  TLV  TLV                  | 2 mg/m3 0,1 mg/m3 substances in factories regularized by the substances of the subst | Form  Dust. Fume. Dust. Fume.  Fume.  Dust. Fume. Dust. Fume. Dust. Fume. Dust. Fume.   |
| Tellurium (CAS 13494-80-9)  Cyprus. OELs. Control of factory amended. Components  copper (CAS 7440-50-8)  Czech Republic. OELs. Governme Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Denmark. Exposure Limit Values Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Estonia. OELs. Occupational Exposeptember 2001)                     | STEL MAC atmosphere and dangerous  Type TWA ent Decree 361 Type Ceiling TWA Ceiling TWA  Ceiling TWA  Type  TLV TLV osure Limits of Hazardous S | 2 mg/m3 0,1 mg/m3 substances in factories regularized by the substances of factories regularized by the substance of fact | Form  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Fume.  Dust. Form  Dust. Form  Dust. Form  Dust. Form  Dust. Fume. Dust. Fume. Dust. Fume. Dust. |

Material name: ZnTe-Cu2Te SDS EU

| Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. | (Annex of Regulation No. 293 of 18 |
|--|------------------------------------|
| September 2001)  |                                    |

| Components  | Туре   | Value  | Form  |  |
|---|--|--|---|--|
| Tellurium (CAS 13494-80-9)  | TWA  | 0,1 mg/m3  |   |  |
| Finland. Workplace Exposure Lim   |  |  | <b>F</b>  |  |
| Components  | Туре   | Value  | Form  |  |
| copper (CAS 7440-50-8)  | TWA  | 1 mg/m3<br>0,1 mg/m3   | Respirable dust and/or fume.                                      |  |
| Tellurium (CAS 13494-80-9)  | STEL<br>TWA  | 0,3 mg/m3<br>0,1 mg/m3   |   |  |
| France. Threshold Limit Values (V   |  | . •  | e, INRS ED 984  |  |
| Components  | Туре   | Value  | Form  |  |
| copper (CAS 7440-50-8)  | VLE  | 2 mg/m3  | Dust.   |  |
|   | VME  | 1 mg/m3  | Dust.   |  |
| ellurium (CAS 13494-80-9)   | VME  | 0,2 mg/m3<br>0,1 mg/m3   | Fume.   |  |
| Germany. DFG MAK List (advisory   |  | • •  | zards of Chemical   |  |
| Compounds in the Work Area (DF  |  | investigation of freatth ha  | zarus or chemicar   |  |
| Components  | Туре   | Value  | Form  |  |
| copper (CAS 7440-50-8)  | TWA  | 0,01 mg/m3   | Respirable fraction.  |  |
| Zinc (CAS 7440-66-6)  | TWA  | 2 mg/m3  | Inhalable fraction.   |  |
|   |  | 0,1 mg/m3  | Respirable fraction.  |  |
| Greece. OELs (Decree No. 90/199<br>Components   | 9, as amended)<br>Type   | Value  | Form  |  |
|   |  |  |   |  |
| copper (CAS 7440-50-8)  | STEL<br>TWA  | 2 mg/m3  | Dust.   |  |
|   | IVVA   | 1 mg/m3<br>0,2 mg/m3   | Dust.<br>Fume.  |  |
| Fellurium (CAS 13494-80-9)  | TWA  | 0,1 mg/m3  | i dilici  |  |
| Hungary. OELs. Joint Decree on C  | hemical Safety of Workplace  | · -  |   |  |
| Components  | Туре   | Value  | Form  |  |
| copper (CAS 7440-50-8)  | STEL   | 4 mg/m3  |   |  |
|   |  | 0,4 mg/m3  | Smoke.  |  |
|   | TWA  | 1 mg/m3  | Smoko   |  |
| Isoland OFI's Regulation 154/16   | 000 on occumational ownsers  | 0,1 mg/m3  | Smoke.  |  |
| Iceland. OELs. Regulation 154/19<br>Components  | on occupational exposur<br>Type  | e iimits<br>Value  | Form  |  |
| copper (CAS 7440-50-8)  |  |  |   |  |
|   |  | 1 ma/m3  | Total duct  |  |
| Sopper (Cho / 110 30 0)   | TWA  | 1 mg/m3<br>0 1 mg/m3   | Total dust.<br>Respirable dust                                    |  |
| ,   | TWA  | 1 mg/m3<br>0,1 mg/m3<br>0,1 mg/m3  | Total dust.<br>Respirable dust.<br>Dust.                          |  |
| Fellurium (CAS 13494-80-9)  | TWA  | 0,1 mg/m3  | Respirable dust.  |  |
| Fellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L  | TWA  | 0,1 mg/m3  | Respirable dust.  |  |
| Fellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L  Components  | TWA<br>imits<br>Type   | 0,1 mg/m3<br>0,1 mg/m3<br><b>Value</b>   | Respirable dust.<br>Dust.<br><b>Form</b>                          |  |
| Fellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L  Components  | TWA<br><b>imits</b>  | 0,1 mg/m3<br>0,1 mg/m3   | Respirable dust.<br>Dust.   |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L  Components  Copper (CAS 7440-50-8)  | TWA imits Type  STEL TWA   | 0,1 mg/m3<br>0,1 mg/m3<br><b>Value</b> 2 mg/m3 1 mg/m3 0,2 mg/m3   | Respirable dust. Dust.  Form  Dust and mist.                      |  |
| Fellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Fellurium (CAS 13494-80-9)   | TWA imits Type  STEL TWA TWA   | 0,1 mg/m3<br>0,1 mg/m3<br><b>Value</b> 2 mg/m3 1 mg/m3   | Respirable dust. Dust.  Form  Dust and mist. Dust and mist.       |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limitation  | TWA imits Type  STEL TWA TWA   | 0,1 mg/m3<br>0,1 mg/m3<br><b>Value</b> 2 mg/m3 1 mg/m3 0,2 mg/m3   | Respirable dust. Dust.  Form  Dust and mist. Dust and mist.       |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limitaly.   | TWA  imits  Type  STEL  TWA  TWA  TWA  | 0,1 mg/m3<br>0,1 mg/m3<br>Value<br>2 mg/m3<br>1 mg/m3<br>0,2 mg/m3<br>0,1 mg/m3  | Respirable dust. Dust.  Form  Dust and mist. Dust and mist.       |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limic Components  Tellurium (CAS 13494-80-9)  | TWA  imits Type  STEL TWA  TWA  TWA  its Type  TWA   | 0,1 mg/m3<br>0,1 mg/m3<br>Value<br>2 mg/m3<br>1 mg/m3<br>0,2 mg/m3<br>0,1 mg/m3<br>Value<br>0,1 mg/m3  | Respirable dust. Dust.  Form  Dust and mist. Dust and mist. Fume. |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limit Components  Tellurium (CAS 13494-80-9)  Latvia. OELs. Occupational exposic Components                               | TWA  imits Type  STEL TWA  TWA  TWA  its Type  TWA   | 0,1 mg/m3<br>0,1 mg/m3<br>Value<br>2 mg/m3<br>1 mg/m3<br>0,2 mg/m3<br>0,1 mg/m3<br>Value<br>0,1 mg/m3  | Respirable dust. Dust.  Form  Dust and mist. Dust and mist. Fume. |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limit Components  Tellurium (CAS 13494-80-9)  Latvia. OELs. Occupational exposit Components                               | TWA  imits Type  STEL TWA  TWA  its Type  TWA  TWA  ure limit values of chemical services.   | 0,1 mg/m3 0,1 mg/m3 Value  2 mg/m3 1 mg/m3 0,2 mg/m3 0,1 mg/m3 Value  0,1 mg/m3 substances in work environ                                     | Respirable dust. Dust.  Form  Dust and mist. Dust and mist. Fume. |  |
| Fellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Fellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limit Components  Fellurium (CAS 13494-80-9)  Latvia. OELs. Occupational expositional expositions  Copper (CAS 7440-50-8) | TWA  imits  Type  STEL  TWA  TWA  its  Type  TWA  ure limit values of chemical structure.  | 0,1 mg/m3 0,1 mg/m3 Value  2 mg/m3 1 mg/m3 0,2 mg/m3 0,1 mg/m3 Value  0,1 mg/m3 substances in work environ Value  1 mg/m3 0,5 mg/m3            | Respirable dust. Dust.  Form  Dust and mist. Dust and mist. Fume. |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limit Components  Tellurium (CAS 13494-80-9)  Latvia. OELs. Occupational expositional expositions  Copper (CAS 7440-50-8) | TWA  imits  Type  STEL  TWA  TWA  its  Type  TWA  ure limit values of chemical structure structu | 0,1 mg/m3 0,1 mg/m3 Value  2 mg/m3 1 mg/m3 0,2 mg/m3 0,1 mg/m3 Value  0,1 mg/m3 substances in work environ Value  1 mg/m3                      | Respirable dust. Dust.  Form  Dust and mist. Dust and mist. Fume. |  |
| Tellurium (CAS 13494-80-9)  Ireland. Occupational Exposure L Components  Copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Italy. Occupational Exposure Limit Components  Tellurium (CAS 13494-80-9)  Latvia. OELs. Occupational expos  | TWA  imits  Type  STEL  TWA  TWA  its  Type  TWA  ure limit values of chemical strope  STEL  TWA  TWA  TYPE  STEL  TWA  TWA  | 0,1 mg/m3 0,1 mg/m3 Value  2 mg/m3 1 mg/m3 0,2 mg/m3 0,1 mg/m3 Value  0,1 mg/m3 substances in work enviror Value  1 mg/m3 0,5 mg/m3 0,01 mg/m3 | Respirable dust. Dust.  Form  Dust and mist. Dust and mist. Fume. |  |

| Components   | Chemical Substances, General Requ<br>Type                              | Value  | Form   |
|--|--|--|--|
|  |  | 0,2 mg/m3  | Respirable fraction.                                       |
| Tellurium (CAS 13494-80-9)   | TWA  |  |  |
| Netherlands. OELs (binding)  |  |  |  |
| Components   | Туре   | Value  | Form   |
| copper (CAS 7440-50-8)   | TWA  | 0,1 mg/m3  | Inhalable fraction.  |
| Norway. Administrative Norms fo  | r Contaminants in the Workplace  |  |  |
| Components   | Туре   | Value  | Form   |
| copper (CAS 7440-50-8)   | TLV  | 1 mg/m3  | Dust.  |
|  |  | 0,1 mg/m3  | Fume.  |
| Tellurium (CAS 13494-80-9)   | TLV  | 0,1 mg/m3  |  |
|  | ing maximum permissible concentra                                      | tions and intensiti  | es of harmful factors in t                                 |
| work environment, Annex 1  | <b>-</b>   | M-1  |  |
| Components   | Туре   | Value  |  |
| copper (CAS 7440-50-8)   | TWA  | 0,2 mg/m3  |  |
| Tellurium (CAS 13494-80-9)   | STEL   | 0,03 mg/m3   |  |
|  | TWA  | 0,01 mg/m3   |  |
| -  | ional exposure to chemical agents (N                                   | =  | Fa   |
| Components   | Туре   | Value  | Form   |
| copper (CAS 7440-50-8)   | TWA  | 1 mg/m3  | Dust and mist.   |
|  |  | 0,2 mg/m3  | Fume.  |
| Tellurium (CAS 13494-80-9)   | TWA  | 0,1 mg/m3  |  |
| Romania. OELs. Protection of wor   | rkers from exposure to chemical age                                    | nts at the workpla   | ce   |
| Components   | Туре   | Value  | Form   |
| copper (CAS 7440-50-8)   | STEL   | 1,5 mg/m3  | Dust.  |
|  |  | 0,2 mg/m3  | Fume.  |
|  | TWA  | 0,5 mg/m3  | Dust.  |
| Tellurium (CAS 13494-80-9)   | STEL   | 0,15 mg/m3   |  |
|  | TWA  | 0,05 mg/m3   |  |
| Slovakia. OELs. Regulation No. 30 Components   | 00/2007 concerning protection of he<br>Type                            | alth in work with o<br>Value                                     | chemical agents<br>Form                                    |
| copper (CAS 7440-50-8)   | TWA  | 1 mg/m3  | Inhalable fraction.  |
| ,  |  | 0,2 mg/m3  | Respirable fume.   |
| Tellurium (CAS 13494-80-9)   | TWA  | 0,1 mg/m3  |  |
| Zinc (CAS 7440-66-6)   | TWA  | 2 mg/m3  | Inhalable fraction.  |
|  |  | 0,1 mg/m3  | Respirable fraction.                                       |
|  | erning protection of workers against                                   | risks due to expo  | sure to chemicals while                                    |
| working (Official Gazette of the R<br>Components   | Type   | Value  | Form   |
| copper (CAS 7440-50-8)   | TWA  | 1 mg/m3  | Inhalable fraction.  |
| coppa (απο / TTO-30-0)   | IVV  | 0,1 mg/m3  | Respirable fume.   |
| Tellurium (CAS 13494-80-9)   | TWA  | 0,1 mg/m3  | Inhalable fraction.  |
| Spain. Occupational Exposure Lin   | nite   | -, 3,  |  |
| Components   | Туре   | Value  | Form   |
| copper (CAS 7440-50-8)   | TWA  | 1 mg/m3  | Dust and mist.   |
|  |  |  | Fume.  |
|  |  | 0,2 mg/m3  | i uilic.   |
| Tellurium (CAS 13494-80-9)   | TWA  | 0,2 mg/m3<br>0,1 mg/m3   | rume.  |
| ,  |  | 0,1 mg/m3  |  |
| Sweden. OELs. Work Environmen  | TWA t Authority (AV), Occupational Expos Type                          | 0,1 mg/m3  |  |
| Sweden. OELs. Work Environmen<br>Components  | t Authority (AV), Occupational Expo                                    | 0,1 mg/m3<br>sure Limit Values (                                 | AFS 2015:7)  |
| Sweden. OELs. Work Environmen<br>Components  | t Authority (AV), Occupational Expos<br>Type                           | 0,1 mg/m3<br>sure Limit Values (<br>Value                        | AFS 2015:7)<br>Form  |
| Sweden. OELs. Work Environmen<br>Components<br>copper (CAS 7440-50-8)  | t Authority (AV), Occupational Expos<br>Type                           | 0,1 mg/m3 sure Limit Values ( Value  1 mg/m3                     | AFS 2015:7) Form  Total dust.                              |
| Sweden. OELs. Work Environmen<br>Components<br>copper (CAS 7440-50-8)<br>Tellurium (CAS 13494-80-9)  | t Authority (AV), Occupational Expos<br>Type  TWA  TWA                 | 0,1 mg/m3 sure Limit Values ( Value  1 mg/m3 0,2 mg/m3           | AFS 2015:7) Form  Total dust. Respirable dust.             |
| Sweden. OELs. Work Environmen<br>Components<br>copper (CAS 7440-50-8)<br>Tellurium (CAS 13494-80-9)<br>Switzerland. SUVA Grenzwerte an   | t Authority (AV), Occupational Expos<br>Type  TWA  TWA                 | 0,1 mg/m3 sure Limit Values ( Value  1 mg/m3 0,2 mg/m3           | AFS 2015:7) Form  Total dust. Respirable dust.             |
| Tellurium (CAS 13494-80-9)  Sweden. OELs. Work Environmen Components  copper (CAS 7440-50-8)  Tellurium (CAS 13494-80-9)  Switzerland. SUVA Grenzwerte ar Components  copper (CAS 7440-50-8) | t Authority (AV), Occupational Expos<br>Type  TWA  TWA  T Arbeitsplatz | 0,1 mg/m3 sure Limit Values ( Value  1 mg/m3 0,2 mg/m3 0,1 mg/m3 | AFS 2015:7) Form  Total dust. Respirable dust. Total dust. |

Material name: ZnTe-Cu2Te 2EO Version #: 04 Revision date: 15-January-2018 Issue date: 15-August-2016

| Switzerland. SUVA Grenzy Components       | verte am Arbeitsplatz<br>Type           | Value              | Form                       |  |
|---|---|--------------------|----------------------------|--|
| Tellurium (CAS 13494-80-9)                | STEL                                    | 0,2 mg/m3          | Inhalable dust.            |  |
|   | TWA                                     | 0,1 mg/m3          | Inhalable dust.            |  |
| UK. EH40 Workplace Expo                   | sure Limits (WELs)                      |                    |                            |  |
| Components                                | Туре                                    | Value              | Form                       |  |
| copper (CAS 7440-50-8)                    | STEL                                    | 2 mg/m3            | Inhalable dusts and mists. |  |
|   | TWA                                     | 1 mg/m3            | Inhalable dusts and mists. |  |
|   |   | 0,2 mg/m3          | Fume.                      |  |
| Tellurium (CAS 13494-80-9)                | TWA                                     | 0,1 mg/m3          |                            |  |
| ological limit values                     | No biological exposure limits noted for | the ingredient(s). |                            |  |
| commended monitoring<br>ocedures          | Follow standard monitoring procedures   | 5.                 |                            |  |
| rived no effect levels<br>NELs)           | Not available.                          |                    |                            |  |
| edicted no effect<br>ncentrations (PNECs) | Not available.                          |                    |                            |  |

# 8.2. Exposure controls

**Appropriate engineering** controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

#### Individual protection measures, such as personal protective equipment

**General information** Personal protection equipment should be chosen according to the CEN standards and in discussion

with the supplier of the personal protective equipment.

**Eye/face protection** Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear suitable protective clothing. **Respiratory protection** Wear respirator with dust filter.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Keep away from food and drink, Always observe good personal hygiene measures, such as washing Hygiene measures

after handling the material and before eating, drinking, and/or smoking. Routinely wash work

clothing and protective equipment to remove contaminants.

**Environmental exposure** 

controls

Inform appropriate managerial or supervisory personnel of all environmental releases.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

**Appearance** 

**Physical state** Solid. **Form** Powder. Colour Not available. Not available. Odour **Odour threshold** Not available. pН Not available.

Melting point/freezing point Initial boiling point and

419,53 °C (787,15 °F) estimated 907 °C (1664,6 °F) estimated

boiling range

Flash point Not available.

**Evaporation rate** Not available. Flammability (solid, gas) Not available.

Material name: ZnTe-Cu2Te SDS FU

Upper/lower flammability or explosive limits

Flammability limit - lower Not available.

(%)

Flammability limit - Not available.

upper (%)

**Vapour pressure** 0,00001 hPa estimated

Vapour density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.Explosive propertiesNot explosive.Oxidising propertiesNot oxidising.

9.2. Other information

**Density** 6,39 g/cm3 estimated

**Specific gravity** 6,4 estimated

**SECTION 10: Stability and reactivity** 

**10.1. Reactivity**The product is stable and non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability** Material is stable under normal conditions.

**10.3. Possibility of hazardous** No dangerous reaction known under conditions of normal use.

reactions

**10.4. Conditions to avoid** Contact with incompatible materials.

**10.5. Incompatible materials** Chlorine.

**10.6. Hazardous** No hazardous decomposition products are known.

decomposition products

## **SECTION 11: Toxicological information**

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

**Inhalation** Dust may irritate respiratory system. Prolonged inhalation may be harmful.

**Skin contact** Dust or powder may irritate the skin.

**Eye contact** Dust may irritate the eyes.

**Ingestion** Toxic if swallowed.

**Symptoms** Nausea. Dusts may irritate the respiratory tract, skin and eyes.

11.1. Information on toxicological effects

**Acute toxicity** Toxic if swallowed.

Components Species Test results

Tellurium (CAS 13494-80-9)

<u>Acute</u> Oral

LD50 Rat 83 mg/kg

**Skin corrosion/irritation**Due to partial or complete lack of data the classification is not possible. **Serious eye damage/eye**Due to partial or complete lack of data the classification is not possible.

irritation

Respiratory sensitisation

Due to partial or complete lack of data the classification is not possible.

Due to partial or complete lack of data the classification is not possible.

Due to partial or complete lack of data the classification is not possible.

Due to partial or complete lack of data the classification is not possible.

Due to partial or complete lack of data the classification is not possible.

Due to partial or complete lack of data the classification is not possible.

Material name: ZnTe-Cu2Te

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

# Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

**Reproductive toxicity** Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity

- single exposure

Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity

- repeated exposure

Due to partial or complete lack of data the classification is not possible.

**Aspiration hazard**Due to partial or complete lack of data the classification is not possible.

Mixture versus substance

information

No information available.

Other information Not available.

# **SECTION 12: Ecological information**

**12.1. Toxicity** Very toxic to aquatic life with long lasting effects.

Components

Copper (CAS 7440-50-8)

Aquatic

Crustacea EC50 Water flea (Daphnia magna) 0,036 mg/l, 48 hours

LC50

12.2. Persistence and

Fish

degradability

No data is available on the degradability of this product.

**12.3. Bioaccumulative** No data available.

potential

Partition coefficient

Not available.

n-octanol/water (log Kow)

**Bioconcentration factor (BCF)** Not available. **12.4. Mobility in soil** No data available.

12.5. Results of PBT

Not a PBT or vPvB substance or mixture.

and vPvB assessment

**12.6. Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

Fathead minnow (Pimephales promelas) 0,0319 - 0,0544 mg/l, 96 hours

#### 12.7. Additional information

#### **Estonia Dangerous substances in groundwater Data**

 copper (CAS 7440-50-8)
 Copper (Cu) 1000 UG/L

 Copper (Cu) 15 UG/L

 Zinc (CAS 7440-66-6)
 Zinc (Zn) 50 UG/L

 Zinc (Zn) 5000 UG/L

**Estonia Dangerous substances in soil Data** 

copper (CAS 7440-50-8) Copper (Cu) 100 mg/kg Copper (Cu) 150 mg/kg

Copper (Cu) 500 mg/kg Zinc (Zn) 1000 mg/kg Zinc (Zn) 200 mg/kg

Zinc (Zn) 500 mg/kg

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Zinc (CAS 7440-66-6)

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product

residues. This material and its container must be disposed of in a safe manner (see: Disposal

instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

**EU waste code**The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this Disposal material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with methods/information

chemical or used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

**Special precautions** Dispose in accordance with all applicable regulations.

# **SECTION 14: Transport information**

#### **ADR**

**14.1. UN number** 11N3288

14.2. UN proper shipping Toxic solid, inorganic, n.o.s. (Tellurium)

14.3. Transport hazard class(es)

6.1(PGIII)

**Subsidiary risk** Label(s) 6.1 Hazard No. (ADR) 60 **Tunnel restriction** F

code

14.4. Packing group III 14.5. Environmental Yes

hazards

14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling.

for user

RTD

**14.1. UN number** UN3288

14.2. UN proper shipping Toxic solid, inorganic, n.o.s. (Tellurium)

name

14.3. Transport hazard class(es)

6.1(PGIII)

**Subsidiary risk** Label(s) 6.1 14.4. Packing group III14.5. Environmental Yes

hazards

14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling.

for user

**ADN** 

**14.1. UN number** UN3288

14.2. UN proper shipping Toxic solid, inorganic, n.o.s. (Tellurium)

name

14.3. Transport hazard class(es)

Class 6.1(PGIII)

**Subsidiary risk** Label(s) 6.1 14.4. Packing group III14.5. Environmental Yes

hazards

14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling.

for user

**IATA** 

**14.1. UN number** UN3288

14.2. UN proper shipping Toxic solid, inorganic, n.o.s. (Tellurium)

name

14.3. Transport hazard class(es)

Class 6.1(PGIII)

**Subsidiary risk** III 14.4. Packing group 14.5. Environmental Yes hazards

**ERG Code** 

14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling.

for user

Other information

Passenger and cargo Allowed with restrictions.

6L

aircraft

Cargo aircraft only Allowed with restrictions.

Material name: ZnTe-Cu2Te 2EO Version #: 04 Revision date: 15-January-2018 Issue date: 15-August-2016

#### **IMDG**

**14.1. UN number** UN3288

**14.2. UN proper shipping** TOXIC SOLID, INORGANIC, N.O.S. (Tellurium), MARINE POLLUTANT

name

14.3. Transport hazard class(es)

Class 6.1(PGIII)

F-A, S-A

Subsidiary risk 14.4. Packing group III
14.5. Environmental hazards
Marine pollutant Yes

**14.6. Special precautions** Read safety instructions, SDS and emergency procedures before handling.

for user

**EmS** 

#### ADN; ADR; IATA; IMDG; RID



#### Marine pollutant



# **SECTION 15: Regulatory information**

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

## **Authorisations**

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended Not listed.

#### **Restrictions on use**

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Zinc (CAS 7440-66-6)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

#### Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

copper (CAS 7440-50-8) Zinc (CAS 7440-66-6)

Other regulations

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. Additional information is given in the Safety Data Sheet.

**National regulations** 

Follow national regulation for work with chemical agents. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## **SECTION 16: Other information**

List of abbreviations

classification of mixture

Information on evaluation method leading to the

Disclaimer

Not available.

The classification for health and environmental hazards is derived by a combination of calculatior methods and test data, if available.

Materion Advanced Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This document has been prepared using data from sources considered to be technically reliable and the information is believed to be correct. Materion makes no warranties, expressed or implied, as to the accuracy of the information contained herein. Materion cannot anticipate all conditions under which this information and its products may be used and the actual conditions of use are beyond its control. The user is responsible to evaluate all available information when using this product for any particular use and to comply with all Federal, State, Provincial and Local laws, statutes and regulations.