



# SAFETY DATA SHEET

**MATERION**

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

### 1.1. Product identifier

**Name of the substance** Cerium Telluride (Ce<sub>2</sub>Te<sub>3</sub>) Powder  
**Identification number** 234-605-8 (EC number)  
**Registration number** -  
**Synonyms** None.  
**Issue date** 04-May-2015

### 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  
**Division** Milwaukee  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Laura Hamilton

### 1.4. Emergency telephone number

**Version number** 01

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

**Identified uses** Not available.  
**Uses advised against** None known.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The substance 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

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

**Hazard summary** Not available.

### 2.2. Label elements

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

**Contains:** Cerium Telluride  
**Hazard pictograms** None.  
**Signal word** None.  
**Hazard statements** The substance does not meet the criteria for classification.

#### Precautionary statements

**Prevention** Not available.  
**Response** Not available.  
**Storage** Not available.  
**Disposal** Not available.

**Supplemental label information** None.

**2.3. Other hazards** None known.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

## General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Cerium Telluride	90 - 100	12014-97-0 234-605-8	-	-	
<b>Classification:</b>	-				

### List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

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

## SECTION 4: First aid measures

**General information** Not available.

### 4.1. Description of first aid measures

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

**Skin contact** Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Get medical advice/attention if you feel unwell.

**4.2. Most important symptoms and effects, both acute and delayed** Not available.

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

## SECTION 5: Firefighting measures

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

### 5.1. Extinguishing media

**Suitable extinguishing media** Water.

**Unsuitable extinguishing media** None known.

**5.2. Special hazards arising from the substance or mixture** Not available.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear suitable protective equipment.

**Special firefighting procedures** In the event of fire, cool tanks with water spray.

**Specific methods** Cool containers exposed to flames with water until well after the fire is out.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** Not available.

**For emergency responders** Keep unnecessary personnel away.

**6.2. Environmental precautions** No special environmental precautions required.

**6.3. Methods and material for containment and cleaning up** Stop the flow of material, if this is without risk. Following product recovery, flush area with water.

**6.4. Reference to other sections** Not available.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid prolonged exposure. Use care in handling/storage.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Material	Type	Value	Form
Cerium Telluride (CAS 12014-97-0)	MAK	0,1 mg/m <sup>3</sup>	Inhalable fraction.
	STEL	0,5 mg/m <sup>3</sup>	Inhalable fraction.

##### Belgium. Exposure Limit Values.

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

##### Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

##### Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	MAC	0,1 mg/m <sup>3</sup>

##### Czech Republic. OELs. Government Decree 361

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	Ceiling	0,5 mg/m <sup>3</sup>
	TWA	0,1 mg/m <sup>3</sup>

##### Denmark. Exposure Limit Values

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TLV	0,1 mg/m <sup>3</sup>

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

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

##### Finland. Workplace Exposure Limits

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	STEL	0,3 mg/m <sup>3</sup>
	TWA	0,1 mg/m <sup>3</sup>

##### France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	VME	0,1 mg/m <sup>3</sup>

**Greece. OELs (Decree No. 90/1999, as amended)**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

**Iceland. OELs. Regulation 154/1999 on occupational exposure limits**

Material	Type	Value	Form
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>	Dust.

**Ireland. Occupational Exposure Limits**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

**Italy. Occupational Exposure Limits**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

**Lithuania. OELs. Limit Values for Chemical Substances, General Requirements**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

**Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	STEL	0,03 mg/m <sup>3</sup>
	TWA	0,01 mg/m <sup>3</sup>

**Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

**Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

**Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)**

Material	Type	Value	Form
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>	Inhalable fraction.

**Spain. Occupational Exposure Limits**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>

**Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)**

Material	Type	Value	Form
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>	Total dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Material	Type	Value	Form
Cerium Telluride (CAS 12014-97-0)	STEL	0,2 mg/m <sup>3</sup>	Inhalable dust.
	TWA	0,1 mg/m <sup>3</sup>	Inhalable dust.

**UK. EH40 Workplace Exposure Limits (WELs)**

Material	Type	Value
Cerium Telluride (CAS 12014-97-0)	TWA	0,1 mg/m <sup>3</sup>
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	
<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.	
<b>Derived no effect levels (DNELs)</b>	Not available.	
<b>Predicted no effect concentrations (PNECs)</b>	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.

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

<b>General information</b>	Not available.
<b>Eye/face protection</b>	Not normally needed.
<b>Skin protection</b>	
- <b>Hand protection</b>	Not normally needed.
- <b>Other</b>	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>Thermal hazards</b>	Not available.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practices.
<b>Environmental exposure controls</b>	Not available.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties****Appearance**

<b>Physical state</b>	Solid.
<b>Form</b>	Solid. Powder.
<b>Colour</b>	Not available.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.

<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

## 9.2. Other information

<b>Molecular formula</b>	Ce.Te
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## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	Not available.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	None under normal conditions.
<b>10.5. Incompatible materials</b>	None known.
<b>10.6. Hazardous decomposition products</b>	No hazardous decomposition products are known.

## SECTION 11: Toxicological information

<b>General information</b>	Occupational exposure to the substance or mixture may cause adverse effects.
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### Information on likely routes of exposure

<b>Inhalation</b>	Due to lack of data the classification is not possible.
<b>Skin contact</b>	Due to lack of data the classification is not possible.
<b>Eye contact</b>	Due to lack of data the classification is not possible.
<b>Ingestion</b>	Due to lack of data the classification is not possible.

<b>Symptoms</b>	Not available.
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### 11.1. Information on toxicological effects

<b>Acute toxicity</b>	No data available.
<b>Skin corrosion/irritation</b>	Due to lack of data the classification is not possible.
<b>Serious eye damage/eye irritation</b>	Due to lack of data the classification is not possible.
<b>Respiratory sensitisation</b>	Due to lack of data the classification is not possible.
<b>Skin sensitisation</b>	Due to lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Due to lack of data the classification is not possible.
<b>Carcinogenicity</b>	Due to lack of data the classification is not possible.

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

Not listed.

<b>Reproductive toxicity</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to lack of data the classification is not possible.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	This product has no known adverse effect on human health.

## SECTION 12: Ecological information

<b>12.1. Toxicity</b>	No toxicity data noted for the ingredient(s).
<b>12.2. Persistence and degradability</b>	No data is available on the degradability of this product.
<b>12.3. Bioaccumulative potential</b>	Not available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.

<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	Not available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	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).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	Not available.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

## SECTION 14: Transport information

### ADR

<b>14.1. UN number</b>	UN3284
<b>14.2. UN proper shipping name</b>	Tellurium compound, n.o.s. (Cerium Telluride)
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	6.1(PGIII)
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	6.1
<b>Hazard No. (ADR)</b>	60
<b>Tunnel restriction code</b>	E
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not available.

### RID

<b>14.1. UN number</b>	UN3284
<b>14.2. UN proper shipping name</b>	Tellurium compound, n.o.s. (Cerium Telluride)
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	6.1(PGIII)
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	6.1
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not available.

### ADN

<b>14.1. UN number</b>	UN3284
<b>14.2. UN proper shipping name</b>	Tellurium compound, n.o.s. (Cerium Telluride)
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	6.1(PGIII)
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	6.1
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not available.

### IATA

<b>14.1. UN number</b>	UN3284
<b>14.2. UN proper shipping name</b>	Tellurium compound, n.o.s. (Cerium Telluride)
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	6.1(PGIII)
<b>Subsidiary risk</b>	-

<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	No.
<b>ERG Code</b>	6L
<b>14.6. Special precautions for user</b>	Not available.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

**IMDG**

<b>14.1. UN number</b>	UN3284
<b>14.2. UN proper shipping name</b>	TELLURIUM COMPOUND, N.O.S. (Cerium Telluride)
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	6.1(PGIII)
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-A, S-A
<b>14.6. Special precautions for user</b>	Not available.

**ADN; ADR; IATA; IMDG; RID**



**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**

Not listed.

**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**

Not listed.

**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**

Not listed.

**Other regulations**

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

**National regulations**

Not available.

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

**List of abbreviations**

Not available.

**References**

Not available.

**Training information**

Not available.

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