

# SUPPLIER



## MATERIAL SAFETY DATA SHEET

**GENERATED** 03/15/2011, **REVISION** 04/02/2008, **SUPERCEDES REVISION** 07/11/2005,  
**DATE CREATED** 04/16/1990

### SECTION I - PRODUCT IDENTIFICATION

**Tellurium, powder and pieces**

**PRODUCT NAME:** Tellurium, powder and pieces

**PRODUCT CODE:** T-MSDS0063

**REFERENCE #:** 13494-80-9

#### **MANUFACTURER INFORMATION**

**COMPANY NAME:** Materion Advanced Chemicals Inc.  
 1316 W. St. Paul Avenue  
 Milwaukee, WI 53233

**EMERGENCY CONTACT:** CHEMTREC (800)424-9300

**ALTERNATE EMERGENCY CONTACT:** Materion Advanced Chemicals Inc. (414)289-9800

**CHEMICAL FAMILY:** Metalloid

**CAS NUMBER:** 13494-80-9

**FORMULA:** Te

**MOLECULAR WEIGHT:** 127.60

#### **SYNONYMS**

Tellurium, aurum paradoxum, metallum probiematum,telloy

### SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

**Tellurium, powder and pieces**

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA PEL	ACGIH TLV	Other Limits
Tellurium	13494-80-9	0.0 -100.0 %	0.1 mg/m3	0.1 mg/m3	NE

### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

#### Tellurium, powder and pieces

<b><u>PHYSICAL STATES:</u></b>	<input type="checkbox"/> Gas	<input type="checkbox"/> Liquid	<input checked="" type="checkbox"/> Solid
<b><u>MELTING POINT:</u></b>	450.00 C		
<b><u>BOILING POINT:</u></b>	990.00 C		
<b><u>SPECIFIC GRAVITY (WATER = 1):</u></b>	6.24 gm/cc at 30.0 C		
<b><u>VAPOR PRESSURE (VS. AIR OR MM HG):</u></b>	1 mm at 520.0 C		
<b><u>VAPOR DENSITY (VS. AIR = 1):</u></b>	NE or NA		
<b><u>EVAPORATION RATE (VS BUTYL ACETATE=1):</u></b>	NE or NA		
<b><u>SOLUBILITY IN WATER:</u></b>	insoluble		
<b><u>SOLUBILITY NOTES</u></b>			
<b><u>PERCENT VOLATILE:</u></b>	N.A.		
<b><u>APPEARANCE AND ODOR</u></b>			

Silver-white or dark gray powder and pieces, no odor.

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

#### Tellurium, powder and pieces

<b><u>FLASH PT:</u></b>	N.A.	Method Used:	Unknown
<b><u>EXPLOSIVE LIMITS:</u></b>	LEL: NA	UEL:	NA
<b><u>EXTINGUISHING MEDIA</u></b>			

USE: Not applicable. Use suitable extinguishing media for surrounding materials and type of fire.

#### **SPECIAL FIRE FIGHTING PROCEDURES**

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

#### **UNUSUAL FIRE AND EXPLOSION HAZARDS**

When heated to decomposition, tellurium may emit toxic fumes of tellurium.

Burns in air with a greenish-blue flame, forming tellurium dioxide.

May have a hazardous reaction with halogens, interhalogens, metals, hexalithium disilicide, silver bromate and silver iodate.

#### **HAZARDOUS COMBUSTION PRODUCTS**

## SECTION V - REACTIVITY DATA

### Tellurium, powder and pieces

**STABILITY:** Unstable [ ☐ ] Stable [ ☒ ]

#### **CONDITIONS TO AVOID - INSTABILITY**

None

#### **INCOMPATIBILITY - MATERIALS TO AVOID**

Halogens, interhalogens, metals, hexalithium disilicide, silver bromate, silver iodate.

#### **HAZARDOUS DECOMPOSITION OR BYPRODUCTS**

Oxides of tellurium and hydrogen telluride

**HAZARDOUS POLYMERIZATION:** Will occur [ ☐ ] Will not occur [ ☒ ]

#### **CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION**

None

## SECTION VI - HEALTH HAZARD DATA

### Tellurium, powder and pieces

#### **HEALTH HAZARDS (ACUTE AND CHRONIC)**

Elemental tellurium has relatively low toxicity. It is converted in the body to dimethyl telluride which imparts a garlic-like odor to the breath and sweat. Heavy exposures may, in addition, result in headache, drowsiness, metallic taste, loss of appetite, nausea, tremors, convulsions, and respiratory arrest. (Sax, Dangerous Properties of Industrial Materials, eighth edition)

##### **INHALATION:**

Acute: Toxic by inhalation. Dust may cause irritation to the respiratory system, dry mouth, garlic odor to breath, sweat and urine, nausea and vomiting.

Chronic: May cause anorexia, nausea, depression to the central nervous system and somnolence.

##### **INGESTION:**

Acute: Poison by ingestion. May cause dry mouth, suppression of sweat, garlic odor to breath and urine.

Chronic: May cause anorexia, nausea, depression to the central nervous system and somnolence.

##### **SKIN:**

Acute: May cause irritation and itching.

Chronic: May cause dermatitis.

##### **EYE:**

Acute: May cause irritation.

Chronic: No chronic health effects recorded.

TARGET ORGANS: No target organs recorded.

**CARCINOGENICITY:** NTP? No      IARC Monographs? No      OSHA Regulated? No

**CARCINOGENICITY/OTHER INFORMATION**

----- TELLURIUM OTHER TOXICITY DATA -----

orl-rat TDLO: 3300 mg/kg (1-22D preg):TER ims-rat TDLO: 13 mg/kg (10D preg):REP

orl-rat LD50: 5000 mg/kg itr-rat LDLO: 200 mg/kg

orl-mus LD50: 20 mg/kg orl-rbt LD50: 67 mg/kg

orl-gpg LD50: 45 mg/kg

**RECOMMENDED EXPOSURE LIMITS**

See "Section II"

**LD 50 / LC 50**

See "Carcinogenicity/Other Information"

**SIGNS AND SYMPTOMS OF EXPOSURE**

INHALATION: May cause a dry mouth, garlic-like odor to breath, sweat and urine, loss of appetite, sleepiness and nausea.

INGESTION: May cause a dry mouth, garlic-like odor to breath and urine, loss of appetite, sleepiness and nausea.

SKIN: May cause redness and itching.

EYE: May cause redness, itching and watering.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

None recorded

**EMERGENCY AND FIRST AID PROCEDURES**

INHALATION: Remove victim to fresh air; keep warm and quiet; give oxygen if breathing is difficult and seek medical attention.

INGESTION: Give 1-2 glasses of milk or water and induce vomiting; seek medical attention immediately. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing; brush material off skin; wash affected area with mild soap and water; seek medical attention if symptoms persist.

EYE: Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

## **SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

### **Tellurium, powder and pieces**

#### **STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Wear appropriate respiratory and protective equipment specified in section VIII-control measures. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

#### **WASTE DISPOSAL METHOD**

Dispose of in accordance with local, state and federal regulations.

#### **HAZARD LABEL INFORMATION:**

Store in cool, dry area      Store in tightly sealed container      Wash thoroughly after handling

#### **PRECAUTIONS TO BE TAKEN IN HANDLING**

None

#### **PRECAUTIONS TO BE TAKEN IN STORING**

#### **OTHER PRECAUTIONS**

None

## **SECTION VIII - CONTROL MEASURES**

### **Tellurium, powder and pieces**

#### **PROTECTIVE EQUIPMENT SUMMARY - HAZARD LABEL INFORMATION:**

NIOSH approved respirator      Impervious gloves      Safety glasses      Clothes to prevent skin contact

#### **RESPIRATORY EQUIPMENT (SPECIFY TYPE)**

NIOSH - approved respirator

#### **EYE PROTECTION**

Safety glasses

#### **PROTECTIVE GLOVES**

Rubber gloves

#### **OTHER PROTECTIVE CLOTHING**

Protective gear suitable to prevent contamination

#### **VENTILATION**

Local Exhaust: Local exhaust ventilation may be necessary to control any air contaminants to within their PELs or TLVs during the use of this product.

Special: None

Mechanical (Gen): Good general ventilation is recommended.

Other: None

#### **WORK/HYGIENIC/MAINTENANCE PRACTICES**

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

**SECTION IX - ADDITIONAL COMMENTS**  
**Tellurium, powder and pieces**

No data available.

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