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SAFETY DATA SHEET

Section 1- IDENTIFICATION		
COMPOSITION Te		PRODUCT NAME Tellurium
SUPPLIER: Plasmaterials, Inc. 2268 Research Drive Livermore, CA 94550 Ph: 925-447-4030	RECOMMENDED USE: Laboratory Chemicals Scientific Research	EMERGENCY TELEPHONE NUMBERS US: 001-800-424-9300 Europe: 001-703-527-3887

Section 2- HAZARD(S) IDENTIFICATION	
Classification: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)	
Acute Inhalation Toxicity: Category 4 (H332)	Skin Sensitization: Sub-Category 1B (H317)
Reproductive Toxicity: Category 1B (H360)	
Acute Aquatic Toxicity: Category 3 (H402)	Chronic Aquatic Toxicity: Category 3 (H412)
LABEL ELEMENTS: Signal Word: Danger	
	
<u>HAZARD STATEMENTS</u>	
<ul style="list-style-type: none"> -H317: May cause an allergic skin reaction -H332: Harmful if inhaled -H360: May damage fertility or the unborn child. -H402: Harmful to aquatic life -H412: Harmful to aquatic life with long lasting effects. 	
<u>PRECAUTIONARY STATEMENTS</u>	
<ul style="list-style-type: none"> -P201: Obtain special instructions before use. -P202: Do not handle until all safety precautions have been read and understood. -P261: Avoid breathing dust, fume, gas, mist, vapors, spray. -P264: Wash face, hands and any exposed skin thoroughly after handling -P270: Do not eat, drink or smoke when using this product -P271: Use only outdoors or in a well-ventilated area. -P272: Contaminated work clothing should not be allowed out of the workplace. -P273: Avoid release to the environment. -P280: Wear protective gloves, protective clothing, eye protection and face protection -P302 + P352: IF ON SKIN: Wash with plenty of water. -P304 + P340 + P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or doctor/physician if you feel unwell. -P308 + P313: If exposed or concerned: Get medical advice/attention. -P333 + P313: If skin irritation or rash occurs: Get medical advice/attention 	

-P363: Wash contaminated clothing before reuse
-P405: Store locked up
-P501: Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):

-None identified.

Section 3- COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS-No	Molecular Weight
Tellurium	13494-80-9	127.60 g/mol

Section 4- FIRST AID MEASURES

GENERAL ADVICE: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

INHALATION: Remove victim from exposure to fresh air. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Consult a physician.

SKIN CONTACT: Wash off with soap and plenty of water. Consult a physician.

EYE CONTACT: Flush eyes with lukewarm water, lifting upper and lower lids, for at least 15 minutes. Consult a physician.

INGESTION: Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.

MOST IMPORTANT SYMPTOMS/EFFECTS: The most important known symptoms and effects are described in the labeling (see section 2).

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT

NEEDED: No data available

Section 5- FIREFIGHTING MEASURES

Suitable Extinguishing Media:

Carbon Dioxide (CO₂); Dry Chemical, Water Spray, alcohol-resistant foam

Unsuitable Extinguishing Media:

No Information Available

Specific Hazards Arising from the Chemical:

No data available.

Protective Equipment & Precautions for Firefighters:

As in any fire, Firefighters must wear full face, self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

Section 6- ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Evacuate personnel to safe areas. For personnel protection see Section 8.

Environmental Precautions: Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. See Section 12 for additional ecological information.

Methods for Containment & Clean Up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Do not let this chemical enter the environment.

Section 7- HANDLING AND STORAGE

Handling: Avoid contact with eyes and skin. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Storage:

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

Section 8- EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines:**

Component	CAS-No.	Value	Control Parameters	Basis
Tellurium	13494-80-9	TWA	0.100000 mg/m3	USA Occupational exposure limits (OSHA)- Table Z-1 Limits for air contaminants
		TWA	0.100000 mg/m3	USA.ACGIH Threshold Limit Values (TLV)
	Remarks	Halitosis		
		TWA	0.100000 mg/m3	USA.NIOSH recommended exposure limits
		TWA	0.100000 mg/m3	USA Occupational exposure limits (OSHA)- Table Z-1 Limits for air contaminants
		TWA	0.100000 mg/m3	USA.ACGIH Threshold Limit Values (TLV)
	Remarks	Halitosis		
		TWA	0.1 mg/m3	USA.NIOSH recommended exposure limits
		TWA	0.1 mg/m3	USA Occupational exposure limits (OSHA)- Table Z-1 Limits for air contaminants
		TWA	0.1 mg/m3	USA.ACGIH Threshold Limit Values (TLV)
	Remarks	Halitosis		
		PEL	0.1 mg/m3	California permissible exposure limits for chemical contaminants (Title 8 Article 107)

Engineering Measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Personal Protective Equipment:

Eye/Face Protection: Wear face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate standards such as NIOSH (US) or EN 166 (EU).

Skin and Body Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or Type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of Environmental Exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9- PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Appearance: Grey

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting Point/Range: 450°C / 842°F – lit.

Boiling Point/Range: 990°C / 1,814°F – lit.

Flash Point: No data available

Evaporation Rate: No data available

Flammability (solid,gas): No information available

Flammability or Exposure Limits:

<p>Upper: No data available Lower: No data available Vapor Pressure: No data available Vapor Density: No data available Relative Density: 6.24 g/mL at 25°C (77°F) Solubility: 0.0017 g/l at 20°C (68°F) – slightly soluble – OECD Test Guideline 105 Partition coefficient; n-octanol/water: No data available Auto Ignition Temperature: No data available Decomposition Temperature: No data available Viscosity: No data available Explosive Properties: No data available Oxidizing Properties: No data available</p>

Section 10- STABILITY AND REACTIVITY
Reactive Hazard: No data available.
Stability: Stable under recommended storage conditions.
Conditions to Avoid: No data available
Incompatible Materials: Zinc, Cadmium, Sodium/Sodium Oxides, Potassium, Strong acids, Strong bases, Halogens.
Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions-Tellurium oxides Other decomposition products-No data available
Hazardous Polymerization: No data available
Hazardous Reactions: No data available

Section 11- TOXICOLOGICAL INFORMATION
<p>Acute Toxicity: Inhalation: No information available Dermal: No information available Skin Corrosion/Irritation: No information available Serious eye damage/irritation: No information available Respiratory or Skin Sensitization: (Mouse) The product is a skin sensitizer, Sub-category 1B Carcinogenicity: -IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen. -NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen. -OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen. Mutagenic Effects: No information available Reproductive Effects: -Reproductive Toxicity: Rat – Intramuscular -Effects on Fertility: Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants) -Specific Developmental Abnormalities: Central nervous system -Presumed Human Reproductive Toxicant -Developmental Toxicity: Rat – Oral -Effects on Embryo or Fetus: Fetotoxicity (except death, e.g. stunted fetus). -Specific Development Abnormalities: Musculoskeletal system -Effects on Newborn: Other neonatal measures or effects -Specific Developmental Abnormalities: Central nervous system</p>

-Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Musculoskeletal system.

STOT – single exposure: No information available

STOT – repeated exposure: No information available

Aspiration Hazard: No information available

Additional Information (RTECS: WY2625000): Nausea, vomiting, headache, central nervous system depression.

Stomach – Irregularities – Based on Human Evidence

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Section 12- ECOLOGICAL INFORMATION

Toxicity: No information available

Persistence and Degradability: No information available

Bioaccumulation/Accumulation: No information available

Mobility in Soil: No information available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Other Adverse Effects: Harmful to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13- DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of contaminated packaging as unused product.

Section 14- TRANSPORT INFORMATION

DOT: Not dangerous goods

IATA: Not dangerous goods

IMDG/IMO: Not dangerous goods

Section 15- REGULATORY INFORMATION

US Federal Regulations:

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard

HMIS (USA):

Health Hazard: 2

Chronic Health Hazard: *

Flammability: 0

Physical Hazard: 0

National Fire Protection Association (USA):

Health Hazard: 2

Fire Hazard: 0

Reactivity Hazard: 0

US Massachusetts RTK

Component	CAS No.	Revision Date
Tellurium	13494-80-9	1993-04-24

US New Jersey Right-to-Know Act:

Component	CAS No.	Revision Date
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Tellurium	13494-80-9	1993-04-24
US Pennsylvania RTK		
Component	CAS No.	Revision Date
Tellurium	13494-80-9	1993-04-24
US California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.		

Section 16- OTHER INFORMATION

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, the conditions of handling and use, or misuse are beyond our control, Plasmaterials, Inc. makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Users should satisfy themselves that they have all current data relevant to their particular use.

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