TED PELLA, INC.
Microscopy Products for Science and Industry

Safety Data Sheet

Product No. 29-32 Germanium Chips
Issue Date (10-16-15)
Review Date (08-31-17)

Section 1: Product and Company Identification

Product Name: Germanium Chips
Synonym: None
Company Name
Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477
Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day
CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

Classification: The material form contained in this product is not classified as hazardous under Globally Harmonized System of Classification and Labeling and the US OSHA Hazard Communication Standard.
GHS Pictograms: NA
GHS Categories: NA

2.2 Label elements

Signal word, symbols, hazard and precautionary statements: Not applicable/void, due to non-hazardous classification.

2.3 Other hazards

Powder forms are considered flammable.

Health Effects: Chips
NFPA Hazard Rating: Health: 0; Fire: 0; Reactivity: 0
HMIS® Hazard Rating: ND
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:
PBT: ND
vPvB: ND

Emergency overview
Appearance: Grey chips. 1-3mm random sized pieces.
Immediate effects: Dust is irritating to eyes, respiratory system and skin.
Potential health effects
Primary Routes of entry: Chips are not likely to cause health effects.
Dust: Inhalation, ingestion or skin contact
Signs and Symptoms of Overexposure dust: Liver injury may occur. Kidney injury may occur. Blood disorders. Cough. Difficulty in breathing.
Eyes: Causes eye irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.

Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Chronic Exposure: Liver injury may occur. Kidney injury may occur. Blood disorders.
Cough. Difficulty in breathing
Chemical Listed as Carcinogen or Potential Carcinogen: None
See Toxicological Information (Section 11)
Potential environmental effects
See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

Principle Hazardous Component(s) **(chemical and common name(s))** **(Cas. No)**	**%**	**OSHA PEL mg/m3**	**ACGIH TLV mg/m3**	**NTP** Carcinogen	**IARC** Carcinogen	**OSHA regulated** Carcinogen
Germanium Chips (7440-56-4) EC. No. 231-164-3	99.99	ND	ND	No	No	No

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Section 4: First Aid Measures
If accidental overexposure is suspected

Eye(s) Contact: Flush eyes with lukewarm water, lifting upper and lower lids, for at least 15 minutes. Obtain medical attention.
Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.
Inhalation: Remove victim from exposure to fresh air; lie down and keep warm and quiet. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Obtain medical attention.
Ingestion: Clean mouth with water. Get medical attention.

Note to physician
Treatment: Treat symptomatically.
Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures
Flash Point: ND
Flammable Limits: ND
Auto-ignition point: ND
Fire Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special Fire Fighting Procedures: 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.
Unusual Fire and Explosion Hazards: Finely divided powder may ignite if heated in air.
Hazardous combustion products: Germanium oxides.
DOT Class: None

Section 6: Accidental Release Measures
Steps to be Taken in Case Material is Released or Spilled:
Personal precautions: Ensure adequate ventilation. Use personal protective equipment (See section 8).
Methods for containment and cleanup: Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not allow

the chemical to enter the environment.
Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage:

Handling	Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors or spray mist. Take precautionary measures against static discharges. Use explosion-proof equipment. Use only non-sparking tools. Minimize dust generation and accumulation.
Storage	Keep in a dry, cool and well ventilated place. Keep container tightly closed. Keep away from heat and sources of ignition.
Storage temperature:	Store in a cool place.
Storage Pressure:	NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Use fume hoods or respiratory protection as required. If melting or high temperature processing use collection/extraction ventilation.

Personal Protection Equipment

Respiratory protection:	Follow OSHA 29 CFR 1910.134 or European Standard EN 149 respirator regulations.
Protective gloves:	Wear protective gloves.
Skin protection:	Wear appropriate protective clothing.
Eye protection:	Safety goggles.

Additional clothing and/or equipment: Eye wash and shower stations.

Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties

Appearance and Physical State:
Odor (threshold): Dark grey solid powder
Specific Gravity (H_2O=1): 5.350
Vapor Pressure (mm Hg): ND
Vapor Density (air=1): ND
Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND
Boiling Point: 2830 ºC
Melting point: 937 ºC
pH: ND
Solubility in Water: Insoluble
Molecular Weight: 72.59

Section 10: Stability and Reactivity

Stability: Stable under normal conditions
Conditions to Avoid: Incompatible chemicals
Materials to Avoid (Incompatibility): Strong oxidizing agents, strong acids, halogens, acids.
Hazardous Decomposition Products: None under normal use conditions.
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Results of component toxicity test performed: ND
Human experience: ND

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information
Ecological Information: Do not empty into drains.
Chemical Fate Information: ND

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: ND
Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information
US DOT Information: Not regulated
IATA: Not regulated
Marine Pollutant: No
Canadian TDG: Not regulated

Section 15: Regulatory Information
United States Federal Regulations
SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.
SARA 313: Not applicable
SARA 311/312:
RCRA: No.
TSCA: Component is listed: Germanium 7440-56-4
CERCLA: Not listed
State Regulations
California Proposition 65: Not listed.
International Regulations
Canada WHMIS: B4 Flammable solid
Europe EINECS Numbers: See section 3

Section 16: Other Information
Label Information: ND
European Risk and Safety Phrases: S24/25, Avoid contact with skin and eyes. S28A, After contact with skin, wash immediately with plenty of water. S37, Wear suitable gloves. S45, In case of accident or if you feel unwell, seek medical advice immediately.
European symbols needed: ND
Canadian WHMIS Symbols:

Abbreviations used in this document
NE= Not established
NA= Not applicable
NIF= No Information Found
ND= No Data

Disclaimer
Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.

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