MATERIAL SAFETY DATA SHEET

Pure Tech
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Brewster, New York 10509-8950
845/279-0900

Emergency Phone Numbers:
CHEMTREC: 800/424-9300
POISON CENTER: 800/562-8236
Date of Last Revision: 10/89

SECTION 1
PRODUCT IDENTIFICATION

CHEMICAL NAME(S) AND SYNONYM(S): Germanium
FORMULA: Ge
CHEMICAL FAMILY: Element
CHEM. ABSTRACT NO.: 7440564
TSCA: Product is listed.
CAL. MOLECULAR WEIGHT:

SECTION 2
INGREDIENTS/SUMMARY OF HAZARDS

INGREDIENT(S)  CAS #  %  TLV  OSHA PEL
Not Applicable

SECTION 3
PHYSICAL DATA

BOILING POINT (°F): 5126  DENSITY (gm/cc): 5.323
VAPOR PRESSURE: N/A  % VOLATILE BY VOLUME: N/A
REACTION WITH WATER: None  EVAPORATION RATE: N/A
SOLUBILITY WITH WATER: Insoluble  MELTING POINT (°C): 936
APPEARANCE/ODOR: Grayish white metal, odorless.
OTHER:

SECTION 4
FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT/ METHOD: N/A
AUTO IGNITION TEMP (°C): N/A

FLAMMABILITY: Non-flammable

EXTINGUISHING MEDIA: (x) Water   ( ) Foam   ( ) Class D Extinguisher
(x) Dry Chemical   (x) CO(2)

SPECIFIC FIRE FIGHTING PROCEDURES: Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION 5
HEALTH HAZARD DATA

TOXICITY DATA: Considered to be of low toxicity.

ROUTE(S) OF ENTRY: ( ) Inhalation   (x) Skin    ( ) Ingestion

EFFECTS OF OVEREXPOSURE (acute and chronic)

INHALATION: Unknown.

DERMAL/EYE CONTACT: May be a mild irritant.

OTHER (specify):

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None

CARCINOGENICITY: None NTP: IARC MONOGRAPHS: OSHA REGULATED:

EMERGENCY AND FIRST AID PROCEDURES:

INGESTION: Induce vomiting. Seek Medical attention.

INHALATION: Remove victim to fresh air. Administer oxygen. Seek medical attention.

SKIN: Brush material off skin. Wash affected area with soap and water.

EYES: Flush eyes with water for 15 mins. Seek medical attention.

SECTION 6
REACTIVITY DATA
STABILITY: (x) Stable ( ) Unstable
CONDITIONS CONTRIBUTING TO UNSTABILITY:

INCOMPATIBILITY (materials to avoid):
( ) Water              ( ) Combustible materials       ( ) Strong bases
( ) Reducing Agents    ( ) Strong oxidizing materials  ( ) Strong acids
(x) Other (specify): Bromine, chlorine, fluorine, oxygen, potassium chlorate and potassium when Germanium is heated.

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION: ( ) May occur    (x) Will not occur
CONDITIONS TO AVOID: None known.

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SECTION 7
SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wearing full protective clothing, isolate the area and insure proper ventilation. Vacuum up spill and place in a container for proper disposal.

WASTE DISPOSAL METHOD: In accordance with regulations.

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SECTION 8
SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION: (Specify type) NIOSH/MSHA approved respirator

VENTILATION: LOCAL EXHAUST: Recommended
MECHANICAL (General): Germanium Fractures
SPECIAl:

PROTECTIVE GLOVES: Rubber Gloves

EYE PROTECTION: (x) Safety Glasses with Side Shields
( ) Chemical Workers Dust-Proof Goggles (under dusting conditions)
( ) Gas-Tight Goggles or Equivalent
( ) Other (specify):

OTHER PROTECTIVE EQUIPMENT: Maintain sink, safety shower and eyewash fountain in the work area. Wear full protective clothing at all times.
SECTION 9
SPECIAL PRECAUTIONS AND TRANSPORTATION REGULATIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in tightly closed containers in a cool, dry place. Wash hands and face thoroughly.

TRANSPORTATION REQUIREMENTS: No specific requirements.

DOT CLASS:
UN NUMBER:
IMCO CLASS:
OTHER:
ND = No Data Found NA = Not Applicable

MATERIAL SAFETY DATA SHEET

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.