



Material Data Safety Sheet

Quick Identifier: Germanium

I. PRODUCT IDENTIFICATION

| | | | |
|-------------|-----------|-------------------|----|
| Trade Name: | Germanium | Formula: | Ge |
| Synonyms: | | Molecular Weight: | |
| CAS #: | 7440-56-4 | | |

II. HAZARDOUS INGREDIENTS

| <u>Hazardous Components:</u> | <u>OSHA PEL:</u> | <u>ACGIH TLV:</u> | <u>Other Limits:</u> |
|------------------------------|------------------|-------------------|----------------------|
| Germanium | Unknown | Unknown | Unknown |
| Sec. 302 (EHS): | No | Sec. 304 RQ: | No |
| HMIS Ratings (0-4): Health: | N/A | Flammability: | N/A |
| HMIS Protective Equipment: | N/A | Sec. 313: | No |
| | | Reactivity: | N/A |

III. PHYSICAL DATA

| | | | |
|--|--------|---------------------------------|---------|
| Boiling Point: | 5126 C | Melting Point: | Unknown |
| Specific Gravity (H ₂ O=1): | 5.323 | Vapor Density (Air=1): | N/A |
| Vapor Pressure (mm Hg): | N/A | Evaporation Rate: | N/A |
| % Volatiles by Volume: | N/A | Solubility in H ₂ O: | None |

Appearance and Odor: Grayish White Metal - Odorless

IV. FIRE AND EXPLOSION HAZARDS DATA

| | | | |
|-------------------------------------|----------------|----------|--|
| Flash Point/Method: | Not applicable | | |
| Explosive Limits: | LEL: N/A | UEL: N/A | |
| Extinguishing Media: | Any | | |
| Special Fire Fighting Procedures: | None | | |
| Unusual Fire and Explosion Hazards: | None | | |

V. HEALTH HAZARD INFORMATION

| | | | | |
|-----------------------|----------------------------|------------------|-----------------|----|
| Routes of Entry: | Inhalation, Skin and Eyes. | | | |
| Target Organs: | N/A | | | |
| Carcinogenicity: NTP: | Yes | IARC Monographs: | Yes | |
| LD50/LC50: | No toxicity data recorded. | | OSHA Regulated: | No |

Health Hazards (Acute and Chronic):

Inhalation:

Acute: May be irritating
Chronic: N/A

Ingestion:

Acute: Generally Considered to be of low toxicity.
Chronic: N/A

Skin:

Acute: Direct contact may cause local irritation.
Chronic: N/A

Eye:

Acute: Direct contact may cause local irritation.

Chronic: N/A

Signs and Symptoms of Exposures:

Inhalation: N/A

Ingestion: N/A

Skin: N/A

Eye: N/A

Medical Conditions Generally N/A

Aggravated by Exposure:

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Seek immediate medical attention.

INGESTION: Seek immediate medical attention.

SKIN: Seek immediate medical attention.

EYE: Seek immediate medical attention

VI. REACTIVITY DATA

| | |
|--------------------------------------|---|
| Stability: | Stable |
| Incompatibility (Material to avoid): | Bromine, Chlorine, Fluorine, Oxygen, Potassium Chlorate, and Potassium. |
| Hazardous Decomposition Products: | None |
| Hazardous Polymerization: | Will not occur |
| Conditions to Avoid: | Not Applicable |

VII. SPILL OR LEAK PROCEDURES

| | |
|--|--|
| Steps to Be Taken in Case Material Is Released or Spilled: | Collect the material in the original or suitable container. Wear rubber gloves and eye protection. |
| Waste Disposal Method: | Return to supplier or dispose of in accordance with all current local, state and federal regulation. |
| Precautions to Be Taken in Handling and Storing: | Store in clean, dry area |
| Other precautions | None Suggested |

VIII. SPECIAL PROTECTION INFORMATION

| | |
|---|----------------------------|
| Respiratory Protection: | None Suggested |
| Ventilation: Local Exhaust: | Recommended. |
| Mechanical (General): | N/A |
| Protective Gloves: | Rubber |
| Eye Protection: | Safety glasses or goggles |
| Other Protective Clothing or Equipment: | None Suggested |
| Work/Hygienic/Maintenance Practices: | Normal hygienic practices. |

IX. ADDITIONAL COMMENTS

Some of the chemicals listed herein are research or experimental substances which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the direct supervision of a "technically qualified individual", as defined in 40 CFR 710.2(aa).

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