



# Changsha Santech Materials Co.,Ltd.

## 长沙盛特新材料有限公司

Office: No. 909-910,9/f Xiaoxiang International Bldg, 158 Wuyi Avenue,Changsha,Hunan,410001,China

Tel: +86 (0)731 8972 3191 Fax : +86 (0)731 8972 3336 Web: [www.santechchem.com](http://www.santechchem.com)

## Material Safety Data Sheet

### Germanium MSDS

#### Section 1 - Chemical Product and Company Identification -----

**Product Name:** Germanium

**Molecular Weight:** Ge 72.59 g/mol

**CAS No.:** 7440-56-4

**EINECS No.:** 231-164-3

**Data No.:** MSDS-Ge-160105

#### **Manufacturer Information**

**Changsha Santech Materials Co.,Ltd.**

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Tel: 86 (0)731 8972 3191 Fax: 86 (0)731 8972 3336

E-mail: [santech@santechchem.com](mailto:santech@santechchem.com) Web: [www.santechchem.com](http://www.santechchem.com)

#### Section 2 - Composition, Information on Ingredients -----

##### **Composition:**

Name	CAS No.	EC-No.	%by weight
Germanium	7440-56-4	231-164-3	100

No ingredients are hazardous according to OSHA criteria

#### Section 3 - Hazards Identification -----

##### **Classification of the substance or mixture**

Not a hazardous substance or mixture.

##### **GHS Label elements, including precautionary statements**

Not a hazardous substance or mixture.

**Hazards not otherwise classified (HNOC) or not covered by GHS - none**

#### Section 4 - First Aid Measures -----

##### **Description of first aid measures**

##### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

##### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

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

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

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

**Indication of any immediate medical attention and special treatment needed**

No data available

**Section 5 - Fire Fighting Measures** -----**Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture**

Germanium oxides

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

No data available

**Section 6 - Accidental Release Measures** -----**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**Section 7 - Handling and Storage** -----**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage, including any incompatibilities**

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

Storage class (TRGS 510): Non Combustible Solids

**Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**Section 8 - Exposure Controls, Personal Protection** -----**Control parameters****Components with workplace control parameters**

## **Exposure controls**

### **Appropriate engineering controls**

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

### **Personal protective equipment**

#### **Eye/face protection**

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0,3 mm

Break through time: 480 min

Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0,3 mm

Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### **Control of environmental exposure**

Do not let product enter drains.

## **Section 9 - Physical and Chemical Properties** -----

### **Information on basic physical and chemical properties**

- a) Appearance Form: chips  
Colour: grey, white
- b) Odour odourless
- c) Odour Threshold: No data available
- d) pH: No data available
- e) Melting point/freezing point: Melting point/range: 937 °C - lit.
- f) Initial boiling point and boiling range: 2.830 °C - lit.
- g) Flash point: Not applicable
- h) Evaporation rate: No data available
- i) Flammability (solid, gas): No data available

#### **Explosive limits**

- k) Vapour pressure: No data available
- l) Vapour density: No data available
- m) Relative density: 5,35 g/mL at 25 °C
- n) Water solubility insoluble
- o) Partition coefficient: noctanol/water: No data available
- p) Auto-ignition temperature: No data available
- q) Decomposition temperature: No data available
- r) Viscosity: No data available
- s) Explosive properties: No data available
- t) Oxidizing properties: No data available

### **Section 10 - Stability and Reactivity** -----

#### **Reactivity**

No data available

#### **Chemical stability**

Stable under recommended storage conditions.

#### **Possibility of hazardous reactions**

No data available

#### **Conditions to avoid**

No data available

#### **Incompatible materials**

Strong oxidizing agents, Halogens, Water, Sulfuric acid, Molten alkali metals, Nitrates, arbonates

#### **Hazardous decomposition products**

Other decomposition products - No data available

### **Section 11 - Toxicological Information** -----

#### **Information on toxicological effects**

##### **Acute toxicity**

No data available

##### **Skin corrosion/irritation**

No data available

##### **Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**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 by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: LY5200000

Liver injury may occur., Kidney injury may occur., Blood disorders, Cough, Difficulty in breathing

**Section 12 - Ecological Information** -----

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects**

No data available

**Section 13 - Disposal Considerations** -----

**Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### **Contaminated packaging**

Dispose of as unused product.

### **Section 14 - Transport Information** -----

UN number: No data available

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

#### **Special precautions for user**

No data available

### **Section 15 - Regulatory Information** -----

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available

#### **Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

### **Section 16 - Additional Information** -----

References: Not available.

Other Special Considerations: Not available.

Created: 10/10/2005

Last Updated: 05/01/2016

#### **Further information**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.

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