

112, Building 7, Hi-Tech Incubation Park, Tianfu Ave.,
Chengdu, China
Tel: ++86/28/85335378
Fax: ++86/28/85335379
E-mail: info@healthcom.com.cn

Healthcom

Healthcom (Chengdu) Biotech Co., Ltd.
成都必而康生物技术有限公司

Material Safety Data Sheet

Germanium sesquioxide (Ge-132)

Section 1 - Chemical Product and Company Identification

MSDS Name: Germanium sesquioxide

Molecular formular: $(\text{CH}_2\text{CH}_2\text{COOHGe})_2\text{O}_3$

Company Identification:

Healthcom (Chengdu) Biotech Co., Ltd.
Chengdu,
China

For more information, fax: 86 - 28 - 85335379

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
58166-27-1	Germanium sesquioxide	99.95%	235-800-0

Section 3 - Hazards Identification

Potential Acute Health Effects:

Hazardous in case of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage

Section 4 - First Aid Measures

Eye Contact: Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and

112, Building 7, Hi-Tech Incubation Park, Tianfu Ave.,
Chengdu, China
Tel: ++86/28/85335378
Fax: ++86/28/85335379
E-mail: info@healthcom.com.cn

Healthcom

Healthcom (Chengdu) Biotech Co., Ltd.
成都必而康生物技术有限公司

thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact: Not available.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Not available.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Section 5 - Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6 - Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system

Section 7 - Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid contact with eyes Wear suitable protective clothing In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label.

Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Germanium sesquioxide	none listed	none listed	none listed

OSHA Vacated PELs: Germanium sesquioxide, No OSHA Vacated PELs are listed for this chemical.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

112, Building 7, Hi-Tech Incubation Park, Tianfu Ave.,
Chengdu, China
Tel: ++86/28/85335378
Fax: ++86/28/85335379
E-mail: info@healthcom.com.cn

Healthcom

Healthcom (Chengdu) Biotech Co., Ltd.
成都必而康生物技术有限公司

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: white crystalline powder

Odor: characteristic.

pH: 2.5~2.6

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Decomposition Temperature: Not available.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

NFPA Rating: (estimated) Health: 1; Flammability: 0; Reactivity: 0

Explosion Limits, Lower: Not available.

Upper: Not available.

Solubility: conform

Specific Gravity/Density: Not available.

Molecular Formula: $(\text{CH}_2\text{CH}_2\text{COOHGe})_2\text{O}_3$

Section 10 - Stability and Reactivity

Chemical Stability: stable.

Conditions to Avoid: Incompatible materials, dust generation, excess heat, strong oxidants.

Incompatibilities with Other Materials: Oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS# 12758-40-6

112, Building 7, Hi-Tech Incubation Park, Tianfu Ave.,
Chengdu, China
Tel: ++86/28/85335378
Fax: ++86/28/85335379
E-mail: info@healthcom.com.cn

Healthcom

Healthcom (Chengdu) Biotech Co., Ltd.
成都必而康生物技术有限公司

LD50: Acute oral toxicity (LD50): 7050 mg/kg [Rat].

Carcinogenicity: No information available.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: Not available.

Environmental Fate: Not available.

Physical/Chemical: Not available.

Other: Not available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	N.V.				N.V.
Hazard Class:					
UN Number:					
Packing Group:					

Section 15 - Regulatory Information

112, Building 7, Hi-Tech Incubation Park, Tianfu Ave.,
Chengdu, China
Tel: ++86/28/85335378
Fax: ++86/28/85335379
E-mail: info@healthcom.com.cn



Healthcom

Healthcom (Chengdu) Biotech Co., Ltd.
成都必而康生物技术有限公司

US FEDERAL

TSCA

CAS# 12758-40-6 is not listed on the TSCA inventory. It is for research and development use only.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Not available.

112, Building 7, Hi-Tech Incubation Park, Tianfu Ave.,
Chengdu, China
Tel: ++86/28/85335378
Fax: ++86/28/85335379
E-mail: info@healthcom.com.cn



Healthcom

Healthcom (Chengdu) Biotech Co., Ltd.
成都必而康生物技术有限公司

Safety Phrases:

Not available.

WGK (Water Danger/Protection)

CAS#12758-40-6: No information available.

Canada

None of the chemicals in this product are listed on the DSL/NDL list. WHMIS: Not available.

CAS# 12758-40-6 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 11/02/2011

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. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Healthcom be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Healthcom has been advised of the possibility of such damages.