

1. Product and company identification

Product identifier

Trade name: Vermiculite

Relevant identified uses of the substance or mixture and uses advised against

General use: Filler(s)

Details of the supplier of the safety data sheet

Company name: Otto Bock Health Care

Street/POB-No.: 3820 W. Great Lakes Drive

Postal Code, city: Salt Lake City, UT 84120

USA

WWW: www.ottobockus.com

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Department responsible for information:

Quality Department,

Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),

Email: USRegulatory@ottobock.com

Additional information:

Corporate headquarters:

Ottobock SE & Co. KGaA

Max-Näder-Straße 15

Duderstadt

Germany

Emergency phone number

CHEMTREC, Telephone: +1 (800) 424-9300

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2. Hazards identification

Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: solid

Form: granulate or powder

Color: not determined

Odor: Odorless

Classification: This material is classified as not hazardous.

Regulatory status

This material is not considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards not otherwise classified

Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis).

A repeated, excessive dust exposure can cause pneumoconiosis.

Dust: Can cause skin, eye and respiratory tract irritation.

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Silicon dioxide, magnesium, Aluminium, iron silicate

4. First aid measures

- In case of inhalation: Provide fresh air. Seek medical treatment in case of troubles. In case of breathing difficulties administer oxygen.
- Following skin contact: Wash with generous amount of water and soap. In case of skin reactions, consult a physician.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.
- After swallowing: Rinse mouth with water. Keep airway open. Seek medical attention.

Most important symptoms/effects, acute and delayed

Irritation to respiratory tract.

Dust: Can cause skin, eye and respiratory tract irritation.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

not combustible

Auto-ignition temperature: No data available

Suitable extinguishing media:

Material is not combustible. Co-ordinate fire-fighting measures to the fire surroundings.

Specific hazards arising from the chemical

May form dangerous gases and vapors in case of fire.

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus.

Additional information:

Do not breathe fumes.

Do not allow fire water to penetrate into surface or ground water.

6. Accidental release measures

Personal precautions:

Avoid generation of dust.

Provide adequate ventilation.

Do not breathe dust.

Wear appropriate protective equipment.

Methods for clean-up: Keep wet with water. Take up dust-free and set down dust-free.
Large quantities may be vacuum cleaned.

7. Handling and storage

Handling

Advices on safe handling: Avoid generation of dust.
Provide adequate ventilation.
Do not breathe dust.
Wear appropriate protective equipment.

Storage

Requirements for storerooms and containers:
Keep container tightly closed.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
14808-60-7	Quartz (SiO ₂)	USA: ACGIH: TWA	0.025 mg/m ³ (respirable fraction)
		USA: IDLH: TWA	25 mg/m ³
			(respirable fraction, (cristobalite/tridymite)
		USA: IDLH: TWA	50 mg/m ³
			(respirable fraction, quartz/tripoli)
		USA: NIOSH: TWA	0.05 mg/m ³ (respirable fraction)
		USA: OSHA: TWA	10 mg/m ³ / % SiO ₂ + 2
			(respirable fraction)
		USA: OSHA: TWA	250 mppcf/ % SiO ₂ +5 (fine dust)
		USA: OSHA: TWA	30 mg/m ³ / % SiO ₂ + 2 (inhalable fraction)

Engineering controls

Withdraw by suction.
Do not breathe dust.
See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.

Protective gloves: Recommendation: Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material: PVC

Respiratory protection: In case of dust formation: Use approved industrial vacuum cleaner fitted with high efficiency filter (HEPA) for removal.
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used! The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

General hygiene considerations:
Wash hands before breaks and after work.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance: Physical state at 68 °F and 101.3 kPa: solid
Form: granulate or powder
Color: not determined

Odor: Odorless

Odor threshold: No data available

pH: Not applicable

Melting point/freezing point: No data available

Initial boiling point and boiling range: not determined

Flash point/flash point range: not combustible

Evaporation rate: No data available

Flammability: No data available

Explosion limits: No data available

Vapor pressure: No data available

Vapor density: No data available

Density: 0.66 - 0.96 g/cm³

Water solubility: insoluble

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Thermal decomposition: > 2399 °F

Additional information: No data available

10. Stability and reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions:
No dangerous reactions are known.

Conditions to avoid: No data available

Incompatible materials: No data available

Hazardous decomposition products:

May form dangerous gases and vapors in case of fire.

Thermal decomposition: > 2399 °F

11. Toxicological information

Toxicological tests

Toxicological effects:

- Acute toxicity (oral): Lack of data.
- Acute toxicity (dermal): Lack of data.
- Acute toxicity (inhalative): Lack of data.
- Skin corrosion/irritation: Lack of data.
- Serious eye damage/irritation: Lack of data.
- Sensitisation to the respiratory tract: Lack of data.
- Skin sensitisation: Lack of data.
- Germ cell mutagenicity/Genotoxicity: Lack of data.
- Carcinogenicity: Lack of data.
- Reproductive toxicity: Lack of data.
- Effects on or via lactation: Lack of data.
- Specific target organ toxicity (single exposure): Lack of data.
- Specific target organ toxicity (repeated exposure): Lack of data.
- Aspiration hazard: Lack of data.

In case of inhalation:

- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- The following symptoms may occur: cough, breathing paralysis.

General remarks

Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis).
 A repeated, excessive dust exposure can cause pneumoconiosis.
 For carcinogenic effects:
 Information about Quartz (SiO₂) CAS No. 14808-60-7
 IARC Rating: Group 1
 OSHA Carcinogen: not listed
 NTP Rating: listed
 Crystalline silica has been listed a potential human carcinogen (2A) by the International Agency for Research on Cancer (IARC) and as a substance that can be reasonably anticipated to cause cancer in humans by the National Toxicology program.

12. Ecological information

Ecotoxicity

Aquatic toxicity: No negative effects on the environment are known.

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

General information: According to the present state of knowledge negative ecological effects are not expected.

13. Disposal considerations

Product

Recommendation: Dispose of waste according to applicable legislation.

Package

Recommendation: Dispose of waste according to applicable legislation.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:
not applicable

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:
Not restricted

Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:
not applicable

Packing group

ADR/RID, IMDG, IATA-DGR:
not applicable

Environmental hazards

Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

USA: Department of Transportation (DOT)

Proper shipping name: Not restricted

Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: no

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

National regulations - U.S. Federal Regulations

Quartz (SiO₂): TSCA Inventory: listed
 Carcinogen Status:
 IARC Rating: Group 1
 OSHA Carcinogen: not listed
 NTP Rating: listed
 NIOSH Recommendations:
 Occupational Health Guideline: 0553

National regulations - U.S. State Regulations

Quartz (SiO₂): California Proposition 65: cancer

National regulations - Great Britain

Hazchem-Code: -

16. Other information

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)
 Fire: 0 (Minimal)
 Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)
 Flammability: 0 (Minimal)
 Physical Hazard: 0 (Minimal)
 Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 AS/NZS: Australian Standards/New Zealand Standards
 CAS: Chemical Abstracts Service
 CFR: Code of Federal Regulations
 CLP: Classification, Labelling and Packaging
 DMEL: Derived minimal effect level
 DNEL: Derived no-effect level
 EC: European Community
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 HEPA filter: High efficiency particulate air filter
 IATA: International Air Transport Association
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG Code: International Maritime Dangerous Goods Code
 IMO: International Maritime Organization
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 PVC: Polyvinyl chloride
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 TRGS: Technical Rules for Hazardous Substances
 vPvB: Very persistent and very bioaccumulative

Literature: ICSC 0808

Reason of change: General revision

Date of first version: 6/22/2015

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.