威科特瑞
发挥非金属资源无限潜能

Material Safety Data Sheet

Product Name: wollastonite powder

Formulated in accordance with GB/T 16483 and GB/T 17519

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Part 1: Identification of Chemicals and Enterprises

Chinese name of the chemical: 硅灰石粉

Chemical English Name: Wollastonite Powder

Company Name: Liaoning Victory Flame-Retardant Material Technology Co., Ltd.

Address: Group 5, Qingyishan Village, Qingyishan Town, Kuandian Manchu Autonomous County, Dandong City, Liaoning Province

Postal Code: 118222

Fax: 0415-5512939

Contact Number: 0415-5512939

Enterprise Email: lnfo@tiancifr.com

CAS Number: 13983-17-0

Enterprise emergency number: 0415-6191106

Product Recommendations and Limitations: Primarily used as a filler in plastics, coatings, rubber, ceramics, refractory materials, friction materials, papermaking, and other applications.

Part 2： Overview of Hazards

Emergency Overview:

None

GHS Hazard Classification: According to the Global Harmonized System for the Classification and Labelling of Chemicals (GHS), this substance is not classified as hazardous.

Labeling Elements

Pictogram： None

Warning Statement: Warning

Hazardous information:None

Precautionary Statement

- Prevention: None
- Response: None
- Safe Storage: None
- Waste Disposal: None

Physical and chemical hazard : Non-flammable; no explosion

Health hazard : Long-term and repeated inhalation may lead to pneumoconiosis, bronchitis, and emphysema.

Environmental hazards: None

Part 3: Composition/Composition Information

Material: **Material: Mixture :** √

Chemical name: wollastonite powder

Main Ingredients	Concentration (%):	CAS No.
Natural wollastonite (calcium metasilicate)	**≥96.5**	**13983-17-0**
Free silica (quartz impurities)	**≤3.0**	**14464-46-1**
Microscopic impurities (Fe_2O_3, Al_2O_3, MgO)	**≤0.5**	————

Part 4: First Aid Measures

Eye contact: Immediately open the eyelids and rinse with a large amount of running clean water for at least 15 minutes. If stinging pain, redness, or swelling persists after rinsing, seek medical attention. It is essential to remove the contact lens prior to rinsing.

Skin contact: Rinse the skin with clean water and remove adhered dust; apply emollient cream for dry or itchy skin.

Inhalation: Remove from the dust environment and transfer to an area with fresh air; seek medical attention if persistent cough or chest tightness occurs. Long-term excessive exposure may lead to shortness of breath or chest pain, requiring pulmonary examination.

Ingestion: Drink large amounts of water for dilution; do not induce vomiting. Seek medical attention if nausea or abdominal pain occurs.

Part 5: Fire Safety Measures

Highly hazardous: This product is non-flammable, non-explosive, and does not release toxic fumes under high temperatures.

Fire suppression methods and agents: dry powder, water spray, foam, carbon dioxide.

Precautions and measures for fire suppression: Work upwind and wear a dust-proof mask to prevent inhalation of dust from The fire scene; move containers to an open area for cooling.

Part 6: Emergency Response to Leaks

Protective measures, protective equipment, and emergency response procedures for personnel: Wear N95/P1 dust masks, goggles, and rubber gloves.

Environmental protection measures: Prevent dust dispersion from contaminating soil and water sources.

Methods for containment and removal of leaked chemicals, as well as the disposal materials used:

Minor leakage: Clean using wet methods to avoid dust generation, and collect into a sealed woven bag for recycling.

Massive leakage: Contain the spill to prevent entry into sewers or waterways; spray water to suppress dust, collect the spill centrally, and do not discharge it directly into water bodies. Additional note (information): Collect the leaked product and dispose of it as general industrial waste.

1. Closed systems for feeding, crushing, and screening, equipped with corresponding dust removal devices;
2. Use wet methods for dust suppression throughout the entire process; dry sweeping is prohibited.
3. Strictly prohibit mixing or contact with concentrated hydrochloric acid (wollastonite dissolves in concentrated hydrochloric acid and releases dust);
4. Thoroughly wash hands and face after completing tasks; eating or smoking in the workshop is strictly prohibited.

Storage Precautions:

Store in a cool, dry, and well-ventilated warehouse with sealed packaging; store separately from strong acids and food ingredients; protect against moisture, damage, and dust.

Part 7: Handling, Storage and Disposal

Operational Notes:

1. Closed systems for feeding, crushing, and screening, equipped with corresponding dust removal devices;
2. Use wet method for dust suppression throughout the entire process; dry sweeping is prohibited.
3. Strictly prohibit mixing or contact with concentrated hydrochloric acid (wollastonite dissolves in concentrated hydrochloric acid and releases dust)
4. Thoroughly wash hands and face after completing tasks; eating or smoking in the workshop

Part 8: Contact Control/Personal Protection

Occupational exposure limits (permitted concentration):

Time-weighted average permissible concentration of total dust (PC-TWA): 8 mg/m^3

Inhalable crystalline free SiO_2 : PC-TWA ≤ 0.5 mg/m^3

Engineering Control: Continuous negative-pressure dust removal, localized exhaust ventilation, and wet operation methods.

Eye protection: Dust-proof chemical goggles

Respiratory protection: Wear N95/P1 dust masks when dust levels exceed limits; use a dust-resistant half-face mask in high-concentration environments.

Skin and body protection: long-sleeved uniform, rubber gloves.

Other protective measures: Essential shower and eye-washing stations in the workshop

Part 9: Physical and Chemical Properties

Appearance and characteristics:
White/greyish-white needle-like powder, odorless

Solubility: Insoluble in water; soluble in concentrated hydrochloric acid

Melting point (°C): 1540

Mohs hardness: 4.5−5.0

Relative density (water = 1): 2.78−2.9

pH: 8.5−9.5

Saturation vapor pressure (kPa): Not applicable

Inflammability temperature: Non-flammable

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Part 10：Stability and Reactivity

Stability: Stable at room temperature and does not decompose easily.

Contraindications: Concentrated hydrochloric acid, strong acids (causes dissolution reactions and generates significant dust).

Hazardous reaction: Exothermic reaction upon contact with concentrated acids, producing suspended mineral dust.

Hazardous decomposition products: No toxic decomposition products at high temperature.

Part 11：Toxicological Data

Acute toxicity: Oral LD50> 5000 mg/kg (no acute poisoning observed)

Skin corrosion or irritation: Mild skin dryness and irritation

Eye irritation or corrosion: Ingestion of dust causes moderate irritation.

Chronic toxicity: Long-term inhalation of free silica dust can lead to silicosis and pulmonary fibrosis; pure high-purity wollastonite itself does not exhibit clear carcinogenicity, with the hazards arising from quartz impurities.

Carcinogenicity: Pure wollastonite is not classified by the IARC; crystalline free silica is classified as Group 1 carcinogen by the IARC.

Part 12: Ecological Data

Ecotoxicity: Low toxicity to aquatic organisms

Durability and Degradability: Biodegradation testing methods are not applicable to inorganic substances.

Potential bioaccumulation: No bioaccumulative effect observed

Environmental effects: Dust settles in soil, slightly increasing water pH; large-scale leakage can clog water bodies.

Part 13: Waste Disposal

Disposal method: Can be used as general industrial solid waste for landfilling.

Disposal Precautions: Strict compliance with regional waste management regulations is mandatory.

Part 14: Transportation Information

Land transportation: According to transportation regulations, it is not classified as hazardous goods.

Inland water transport: According to transportation regulations, it is not classified as hazardous goods.

Maritime transportation: According to transportation regulations, it is not classified as hazardous goods.

Air transportation: According to transportation regulations, it is not classified as hazardous goods.

Transportation precautions: Protect from rain and moisture; repair any packaging damage promptly to prevent dust dispersion during transit; do not transport with strong acids.

Part 15: Regulatory Information

The following laws, regulations, and standards contain corresponding provisions regarding chemical management:

Regulations on the Safety Management of Hazardous Chemicals:

List of Hazardous Chemicals	Not included
List of Highly Explosive and Hazardous Chemicals	Not included
List of hazardous chemicals subject to strict regulatory oversight	Not included
GB18218-2009 "Identification of Major Hazard Sources for Hazardous Chemicals" (Table 1)	Not included

Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used:

List of Highly Toxic Substances	Not included

Regulations on the Management of Chemicals Used in Drug Production:

Classification and List of Types of Chemicals Susceptible to be Used in Drug Manufacturing	Not included

assumes no joint liability for any legal consequences arising therefrom. The data provided in this manual are based on available information and cannot be guaranteed to be entirely accurate. The precautions mentioned apply only to general operating procedures; in specific situations, they should be applied appropriately according to the intended use while ensuring safety.

Revision Date: July 1, 2026

Revising Department: Liaoning Weiketueri Flame Retardant Materials Technology Co., Ltd.

Part 16: Other Information

Note: This MSDS has been prepared in accordance with the standards "Content and Item Sequence of Chemical Safety Data Sheets" (GB/T 16483-2008) and "Guidelines for Compiling Chemical Safety Data Sheets" (GB/T 17519-2013).

References: [1] Catalog of Hazardous Chemicals (2022 Revised Edition)

[2] Chemical Industry Dictionary, 5th edition, Chemical Industry Press, edited by Yao Huqing

Disclaimer: This instruction manual is intended solely for use with our company's products and may not be applied to products of other manufacturers. No modifications shall be made to this manual under any circumstances, and the Company assumes no joint liability for any legal consequences arising therefrom. The data provided in this manual are based on available information and cannot be guaranteed to be entirely accurate. The precautions mentioned apply only to general operating procedures; in specific situations, they should be applied appropriately according to the intended use while ensuring safety.

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