



安全数据说明书

MATERIAL SAFETY DATA SHEET

1. 化学品名称 Chemical Product

中文名称: 硅灰石

Product Name: Wollastonite

REACH 注册号: 硅灰石为免于注册项

REACH Registration number: Free registration

化学名称/同义词: 硅灰石、偏硅酸钙

Synonyms: Wollastonite, Calcium silicate

材料用途:

作为一种多用途的功能性无机矿物填料和添加剂, 硅灰石广泛应用于工程塑料、涂料、橡胶、高端建材、摩擦材料、阻尼材料等领域

Usages of the substance:

As a multi-functional Inorganic mineral filler and additive, wollastonite used in a variety application areas such as engineering plastics, paints & coatings, rubbers, Advanced building materials, friction materials, insulation materials.

2. 材料组成和成分信息 Composition / Information on Ingredients

化学名称/Chemical Name	CAS #	%	欧盟分类/ EU Classification
天然硅灰石/Natural Wollastonite	13983-17-0	>96.5	未分类/No classification
晶状石英/Crystalline Quartz (SiO ₂)	14808-60-7	<0.1	未分类/No classification
方解石/Calcite CaCO ₃	13397-26-7	<2	未分类/No classification

3. 危险识别 Hazard Identification

一般信息 General Information :

欧盟法规 EC 1272/2008 和欧盟指令67/548/EC没有对硅灰石进行有害物分类标准的定义。本产品为非金属无机矿物, 无毒, 不具备危害性, 不适用 REACH 法规附件XIII中规定的PBT 或vPvB 的标准。Wollastonite is not classified as hazardous in the Regulation EC 1272/2008 and in Directive 67/548/EC This product is an inorganic nonmetal substance, non-toxic, non-hazardous and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

紧急情况 Emergency Overview :



眼睛接触: 高浓度粉尘浸入眼睛可能会导致眼睛过敏, 严重情况下会导致机械性眼伤。

Eye Contact: High concentration dust may cause mechanical irritation, or even cause mechanical eye injury.

皮肤接触: 硅灰石粉尘与皮肤接触可能会导致轻度皮肤过敏。

Skin Contact: Because of the shape of individual wollastonite particles, minor skin irritation may result from prolonged physical contact.

吸入: 与所有其他矿物粉尘类似, 需要采取防尘措施避免吸入过多粉尘, 长期吸入可能引起肺损伤。

Inhalation: Inhalation of high concentrations may cause mechanical irritation and discomfort.

摄入: 摄入时基本无害, 但摄入过量会轻微刺激胃肠道。

Ingestion: There is no harm under normal ingestion, over ingestion may cause a mild irritation to gastrointestinal tract.

致癌性: 本产品为非致癌物质

Carcinogenicity: Wollastonite is not a carcinogenic to human.

4. 急救措施 First Aid Measures

吸入: 转移至新鲜空气区域, 用水清洁喉咙和鼻腔中的散灰尘, 如出现严重咳嗽应及时就医。

Inhalation: Remove individual to fresh air, Drink water to clear throat and blow nose to evacuate dust. If coughing and irritation develop, call a physician.

皮肤接触: 养成良好的卫生习惯, 每次在皮肤接触后用肥皂和水及时清洗。

Skin Contact: Keep normal good personal hygiene practices. Wash with mild soap and warm water after each exposure.

眼睛接触: 立即用大量自来水冲洗眼睛至少15分钟。如果长时间眼睛感到刺激难受应及时就医。

Eye Contact: Flush eye with large amounts of water until irritation subsides, as least 15 minutes. See a physician if irritation persists.

摄入: 一般不需要采取应急措施, 短时间会刺激肠胃系统, 不会出现中毒事故。

Ingestion: Emergency procedures not normally required. May be a temporary irritant to the GI system.

5. 消防措施 Fire Fighting Measures

可燃性: 不可燃

Flammability: Non-flammable

自燃温度: 不适用

Autoignition temperature: Not applicable



燃点: 不适用

Ignition point: Not applicable

易燃极限: 不适用

Flammable Limits: Not applicable

燃烧物: 不适用

Products of Combustion: Not applicable

不同物质的火灾隐患: 不认为易燃

Fire Hazards in Presence of Various Substances: Not considered to be flammable.

不同物质的爆炸隐患: 无

Explosion Hazards in Presence of Various Substances: None

灭火剂和灭火设备: 产品不会燃烧, 周围环境选用合适的灭火剂。

Fire Fighting Media and Instructions: Product will not burn, use appropriate extinguishing media for surrounding.

意外失火和爆炸隐患: 不适用

Unusual Fire & Explosion Hazards: Not applicable

6. 泄露应急处理 Accidental Release Measures

个人防护措施: 产品泄露会产生飘尘, 需及时穿戴符合国家法规的劳保用品, 如防尘口罩。

Personal precautions: The airborne of product may cause dust, wear personal protective equipment in compliance with national legislation.

环境保护措施: 无特别要求

Environmental Precautions: None special required.

密封和清理程序: 用铲子或勺子类似工具收集泄露物料, 或采取喷水和使用真空吸尘器清扫物料, 避免产生飘尘。请作业人员注意穿戴符合国家法规的劳保用品。

Methods and materials for containment and cleaning up: Avoid dry sweeping and use water spraying or vacuum cleaning systems to minimize airborne dust generation. Wear personal equipment in compliance with national legislation.

7. 搬运和储存 Handling and Storage

安全搬运的预防措施: 请采用密封的包装袋搬运产品, 避免产品裸露在外部, 这可以避免搬运过程中产生飘尘。搬运过程中避免外包装与硬质尖锐物发生碰撞和摩擦而导致包装袋破损。如果灰尘潜值超



过 PEL（允许暴露值）/TLV（阈限值）/OEL（职业暴露限值），则应使用防尘口罩。

Precautions for safe handling: When handling the product, avoid exposure and ensure proper respiratory protection if dust potential exceeds PEL/TLV/OEL. Limit use of power tools unless in conjunction with local exhaust. Use hand tools whenever possible. Frequently clean the work area with HEPA filtered vacuum or wet sweeping to minimize the accumulation of debris. Do not use compressed air for clean-up. In case of insufficient ventilation, wear suitable respiratory protective equipment. Good housekeeping practices should be employed to prevent generation and accumulation of dusts. Handle packaged products carefully to prevent accidental bursting.

安全储存的条件: 产品应存放在干燥区域，尽量避免产生飘尘，并在装卸时避免产品从包装袋溢出，存放期间保持包装容器封闭。

Conditions for safe storage: Minimize airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products to prevent accidental bursting.

不相容性: 避免与强酸接触

Incompatibility: Avoid contact with strong acids.

8. 暴露控制和个人防护 Exposure Controls / Personal Protection

工程控制: 尽量避免产生飘尘。设备区域安装除尘设备、局部排放通风或其他工程控制措施将飘尘量保持在暴露限值以下。对于各类飘尘（如总粉尘、可吸入粉尘、可吸入石英粉尘），请遵守工作地点的法定暴露限值。

Engineering Controls: Occupational Exposure Controls – Minimize airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below exposure limits.

个人防护:

眼部保护: 佩戴装有眼罩的安全眼镜或护目镜，保护眼部不受粉尘或颗粒的伤害。

皮肤保护: 推荐穿着长袖衬衣和长裤类工作服。在每天下班后洗手。

呼吸保护: 如果长时间暴露在飘尘集中的环境下，建议佩戴防尘口罩。

Personal Protection:

Eye protection: Wear safety glasses with side shields or goggles to protect eyes against dust and particulate matter.

Skin protection: Under normal conditions use of protective gloves and clean, body-covering clothing are adequate. In addition, wash your hands after work every day.

Respiration protection: In the case of prolonged exposure to airborne dust concentrations, it is recommended to wear respiratory equipment.

9. 理化特性 Physical and Chemical Properties

外观: 白色针状粉末

Appearance: White powder with needle shape



气味: 无特殊气味

Odor: None

密度: 2.79~2.91g/cm³

Specific Gravity: 2.79~2.91g/cm³

莫氏硬度: 4.5

Mohs hardness: 4.5

熔点: 1540°C

Melting/Sublimation Point: 1540°C

PH值: 9.0 (5%悬浊液)

PH Value: 9.0 (5% concentration)

水溶性: 不溶

Solubility: Insoluble in cold water

可燃性: 不可燃

Flammability: Non-Flammable

10. 稳定性和反应活性 Stability and Reactivity

化学稳定性: 一般情况下, 化学性质稳定

Chemical stability: Product is stable under normal condition.

反应性: 产品化学性质为惰性, 一般情况下不参与化学反应, 但会溶解于浓盐酸中

Reactivity: Wollastonite is a kind of inert substance without reactivity, dissolving in concentrated hydrochloric acid.

危险的化学反应: 未有已知危险反应, 避免氧化物

Possibility of hazardous reactions: No hazardous reactions, avoid of oxide.

11. 毒理学信息 Toxicological Information

进入人体的途径: 吸入或摄入

Routes of entry into body: Inhalation or Ingestion.

急性效应 Acute Effects :

眼睛接触: 不适眼部不适的主要原因。会导致眼部机械不适。

Eye Contact: Not a primary eye irritant. May cause mechanical irritation.

皮肤接触: 由于硅灰石颗粒独特的形状, 长时间接触会造成皮肤的轻度不适。

Skin Contact: Because of the shape of individual wollastonite particles, minor skin irritation may



result from prolonged physical contact.

致敏作用: 不明显。

Sensitization: Not a sensitizer.

摄入: 不是可摄入的危险物品

Ingestion: Not an ingestion hazard.

吸入: 吸入高浓度粉尘会导致眼部机械损伤和不适。

Inhalation: Inhalation of high concentrations may cause mechanical irritation and discomfort.

慢性效应: 未知

Chronic Effects: None known.

备注: 长时间吸入过多的硅灰石灰尘可能会影响肺功能。长时间吸入过多的石英粉尘可引起矽肺病。目前没有公认的研究结果证明硅灰石粉尘过度暴露与癌症之间存在关系, 事实上过度暴露于任何灰尘都可能加重已有的呼吸道疾病。

Note: Prolonged contact with Wollastonite may affect lung function. Silicosis may result from prolonged inhalation of Quartz dust. There is no acknowledged evidence for the relationship between excessive exposure of wollastonite and cancer. In fact, excessive exposure of any dust may make respiratory illnesses worse.

12. 生态学信息 Ecological Information

持久性和降解性: 不相关

Persistence and degradability: Not relevant

生物积聚潜能: 不相关

Bioaccumulative potential: Not relevant

土壤中的移动性: 可忽略

Mobility in soil: Negligible

生态危害: 硅灰石为天然形成的材料。本产品对环境是无害的, 除非在使用中受到污染。

Ecological Hazards: Wollastonite is a naturally occurring mineral. Unless contaminated in service, this product is neutral to the environment.

13. 废弃处置 Disposal Considerations

废料处理方法 Waste Disposal Method:

可将硅灰石丢弃在经批准的垃圾填埋场, 除非硅灰石在使用过程中受到了污染。如果受到有害物的污染, 则应将废料装入合适的集装箱中。将废料集装箱密封并做正确的标签。将集装箱用经过批准的废料承运人发往经批准的运输、储存和处理设施。请务必填好载物清单并做好充分的书面跟踪记录。

May be disposed in an approved landfill unless contaminated in service. If contaminated with hazardous materials, place waste in suitable container. Seal and properly label the waste container. Send the container



to an approved Transportation, Storage and Disposal (TSD) facility via an approved waste hauler. Be sure manifests have been completed and an traceability record has been established.

14. 运输信息 Transportation Information

UN编号: 无编号

UN Number: None

UN 正确装运名称: 未定义

UN Shipping Name: Not regulated

ADR (《危险品公路运输欧洲协议》): 未分类 / Not classified

IMDG (《国际海运危险货物守则》) 未定义 / Not regulated

ICAO (国际民间航空组织): 未定义 / Not regulated

IATA (国际航空运输协会): 未定义 / Not regulated

RID (《国际铁路运输危险货物规则》): 未定义 / Not regulated

其他信息: 根据加拿大危险品运输法律未定义。

Other information: Not regulated as dangerous goods according to Canadian TDGA

15. 法规信息 Regularoty Information

国际职业暴露极限 International Occupational Exposure Limits:

Great Britain	10 mg/m ³ (total inhalable dust); 4 mg/m ³ (respirable dust)
Austria	10 mg/m ³ (total dust)
France	10 mg/m ³ (general dust)
Ireland	10 mg/m ³ (total dust); 4 mg/m ³ (respirable dust)
Poland	4 mg/m ³ (total dust)
Denmark	1 fiber/cm ³ (wollastonite)
Sweden	0.5 fibers/ml (natural fibers)
Canada,	Quebec 1 fibre/cm ³ (wollastonite TWAEV)

国际现有物质名录 International Inventory Listings:

Australia: AICS: Wollastonite is included in the Australian Inventory of Chemical Substances, June 1996 Ed..

Canada: DSL, NDSL and CEPA: All components of this product are included in the DSL, NDSL and CEPA Chemical Inventories.

WHMIS: Not controlled by WHMIS.

China: IECSC: Wollastonite is included in the Inventory of Existing Substances in China.

EEC: EINECS/ELINCS: All components of this product are included in the EINECS AND ELINCS EEC Chemical Inventories.

IUCLID: Chemical information on wollastonite has been submitted for inclusion in the International Uniform Chemical Information Database.

67/548/EEC: ALTox a/s has on 27/7/98 evaluated and determined that wollastonite is not to be classified according to EEC directive (67/548/EEC).

95/3/EC, Annex III: Listed for use in "Plastic materials and articles intended to come into



contact with foodstuffs.

- Japan:** ENCS: Wollastonite is exempt from the list of Existing and New Chemical Substances as a naturally occurring mineral.
- Korea:** ECL: Wollastonite is included in the Korean Existing Chemical List, ECL Number KE-35416.
- Philippines:** PICCS: Wollastonite is included in the Philippine Inventory of Chemicals and Chemical Substances.
- USA:** EPA-TSCA: Wollastonite is exempt from the TSCA Inventory as a naturally occurring mineral. All proprietary surface treatments are included on the TSCA Inventory.
EPA-CERCLA Reportable Quantity: N/Ap
EPA-SARA Title III: Substances in this product are not reportable under Section 313.
EPA-FIFRA: Wollastonite is present on the list of Pesticide Product Inert Ingredients.
FDA: Approved as pigment or colorant in food contact surface coatings, 21 CFR 175.300.
OSHA: Particulate is regulated as nuisance dust - Particulate Not Otherwise Regulated (PNOR).
ACGIH: Particulate is regulated as a nuisance dust - Particulate Not Otherwise Classified (PNOC).

16. 其他信息 Other Information

上述信息均为查阅大量文献和资料后结合本公司的产品特点而编写，建议在使用产品之前认真阅读以上信息。考虑到相关法律法规信息获取的及时性问题，本公司鼓励用户尽可能关注本地相关法律法规的最新版本。

The above-mentioned information is compiled from copious literature and unique characters of our products. We suggest that read it before the usage our products. In view of accesses to relevant laws and regulations, we encourage the user to pay attention to the latest version of relevant local laws and regulations.