

一. Identifications of Substance and Company

物品與廠商資料

1.1 Product Name: FOAMING REINFORCING FILLER

物品名稱: A 級鋅氧粉 (发泡专用)

1.2 Producer(supplier): GUANZHOU BAIYUN XINGGONG CHEMICAL LTD

製造商 (供應商名稱): 廣州白雲信港化工有限公司

1.3 Address: 204,FLOOR 2,BUILDING D, NO.206,YUEXI STREET, TONGDE STREET,BAIYUN DISTRICT,GUANGZHOU

地址: 廣州市白雲區同德街粵溪大街 206 号 D 栋二楼 204

1.4 Phone: 020-86488586

二. Composition /Information on Ingredients

成份辨識資料

2.1 Zinc compound CAS NO: 1314-13-2

鋅化合物 $\geq 84\%$ 化学文摘登记号:

2.2 Moisture

水分 $\leq 3\%$

2.3 Other additives

其他助剂 $\leq 13\%$

2.4 Chemical name : Zinc Oxide

化学名称: 氧化鋅

三. Hazards Identifications

危害辨識資料

3.1 Hazard class

危險性類別 GHS09 environment



GHS/CLP Regulation (EC)No 1272/2008: Hazardous substances for water environment (acute toxicity) class 1 H400; Hazardous substances in the aquatic environment (slow toxicity) class 1 H410

GHS/CLP 規例(EC)第 1272/2008 号: 水环境之危害物质 (急毒性) 第 1 级 H400; 水环境之危害物质 (慢性) 第 1 级 H410

3.2 Health hazard: Repeated contact is irritating to the skin and eyes. Inhalation may cause thirst, itching, ingestion may cause nausea, vomiting.

健康危害: 反复接触对皮肤有刺激, 对眼睛有刺激。吸入可能出现口渴、咽痒, 食入可能出现恶心、嘔吐。

3.3 Environmental hazard: It may cause long-term harmful effects in the aquatic environment.

環境危害: R50/53 对水生生物有毒, 在水生环境可能会引起长期有害作用。

3.4 Safety suggestions: S60 (substances and containers must be placed as hazardous waste), S61 (prevent discharge to the environment)

安全建议: S60 (物质及容器必须按危险废物放置)、S61 (防止排向环境)

3.5 Explosion hazard: Non-combustible

燃爆危險: 本品不燃

四. First-aid Measures

急救措施

- 4.1 **Inhalation:** Move to fresh air. If breathing is difficult, give oxygen and send to a doctor immediately.
吸入：移至新鮮空氣處。如呼吸困難，給輸氧，立即送醫。
- 4.2 **Skin contact:** Take off contaminated clothes and wash with soapy water and running water.
皮膚接觸：脫去污染衣着，用肥皂水和流動清水沖洗。
- 4.3 **Eye contact:** Lift the eyelids, rinse them with flowing water or normal saline for 15 minutes and send them to hospital immediately.
眼睛接觸：提起眼瞼，用流動的清水或生理鹽水沖洗 15 分鐘，立即送醫。
- 4.4 **Eating:** Brush your mouth thoroughly and take milk, soybean milk or egg white orally. If you swallow too much, please send to a doctor immediately.
食入：徹底刷口，口服牛奶、豆漿或蛋清，如吞食過量，請立即送醫。

五. Fire-fighting Measures

滅火措施

- 5.1 **Extinguishing Media:** Use water mist, chemical dry powder, foam or carbon dioxide extinguisher
適用滅火劑：用水霧、化學干粉、泡沫或二氧化碳滅火劑
- 5.2 **Not suitable Extinguishing Media:** there is no limit to the extinguishing agent applied to this substance or mixture.
不適用滅火劑：施用于此物質或混合物的滅火劑無限制。
- 5.3 **Hazardous combustion products :** ZnO
有害燃燒產物：氧化鋅
- 5.4 **Firemen should wear fire-resistant or fire-resistant clothing, face mask, helmet and gloves, and positive pressure self-contained breathing equipment (SCBA).**
滅火注意措施及防護措施：消防人員需穿戴耐火或防火的衣服，同時穿戴面罩、頭盔和手套，正壓自給式呼吸設備（SCBA）。
- 5.5 **Fire extinguishing guidance:** Prevent dilution of the controlled area from entering rivers, sewers or drinking water supplies.
滅火指導：防止控區的稀釋流出進入河流、下水道或飲用水供應系統。

六. Accidental Release Measures

洩漏處理方法

- 6.1 **Small amount of leakage:** Avoid raising dust, sweep it carefully and collect it in a closed container. It can also be washed with a large amount of water and diluted into the wastewater system.
小量洩漏：避免揚塵，小心掃起，收集于密閉容器中。也可用大量水沖洗，洗水稀釋後放入廢水系統。
- 6.2 **Massive leakage:** Collect, recycle or transport to waste treatment site for disposal.
大量洩漏：收集回收或運至廢物處理場所處置。
- 6.3 **Other:** Avoid drainage into the sewer
其它：避免排入下水道

七. Safe operation and Storage

安全操作與儲存方法

- 7.1 **Operational matters:** Closed operation, local exhaust. Wear dust masks, eye protection, latex gloves and protective clothing. Lightly load and unload, Wash thoroughly with water and soap after work.
操作事項：密閉操作，局部排風。佩帶防塵口罩，防護眼睛，乳膠手套及防護服。工作完後應用水

和肥皂彻底清洗。

- 7.2 Storage method: Store in a cool, dry and ventilated warehouse, away from heat and ignition sources. Separate from acid, base and oxidizer. Separate from magnesium and chlorinated rubber.

儲存方法：儲存於陰涼乾燥通風的庫房，遠離熱及引火源。與酸、鹼、氧化劑分開存放。與鎂、氯化橡膠分開存放。

八. Contact and Precaution

接觸與防護措施

8.1 Occupational exposure concentration

职业暴露浓度

1. 8 hour-TWA (mg/m³)

1. 八小时日时量平均容许浓度：5 mg/m³

2. 15 min-STEL (mg/m³)

2. 短时间时量平均容许浓度：10 mg/m³

3. PEL-CEILING

3. 最高容许浓度：--

- 8.2 Respiratory protection: 1. 50~125 mg/m³: Constant flow oxygen supply breathing protection; Or anti-dust, fog drops and smoke of the dynamic air quiet breathing protection.

呼吸系统防护：1. 50~125 mg/m³: 定流量式供氧式呼吸防护具；或防粉尘、雾滴及烟熏之动力型空气清静式呼吸防护具。

250 mg/m³: full type air 流 clean breathing protection with high efficiency 流 material; Or comprehensive self-carrying respirator; Or all - round oxygen - supplied breathing protection equipment.

250 mg/m³: 具高效率滤材之全面型空气流清式呼吸防护具；或全面型自携式呼吸防护具；或全面型供氧式呼吸防护具。

- 8.3 Eye protection: If contact is likely, protective eyes with protective wings are recommended.

眼睛防护：如果有可能发生接触，建议使用带护翼的防护眼睛。

- 8.4 Body protection: Work protective clothing.

身体防护：工作防护衣。

- 8.5 Hand protection: Protective gloves.

手防护：防护手套。

- 8.6 Other protection: Smoking, eating and drinking are prohibited at the work site. Shower and change clothes after work. Keep good hygiene habits.

其它防护：工作现场禁止吸烟、进食和饮水。工作完毕，淋浴更衣。保持良好的卫生习惯。

- 8.7 Protective equipment (Graphics)

防护设备(图形)



九. Physical and Chemical Property

物理及化學性質

- 9.1 Exterior: White powder, odorless

外觀：白色粉末，无臭。

- 9.2 Molecular formula:

分子式：ZnO

- 9.3 PH: 9.5±1.0

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| 9.4 | Melting point: 熔点(°C): 1975°C |
| 9.5 | Boiling point: 沸点(°C): 2360°C |
| 9.6 | Spontaneous combustion temperature: Meaningless 自燃温度(°C): 无意义 |
| 9.7 | Critical temperature (°C): Meaningless 临界温度(°C): 无意义 |
| 9.8 | Critical pressure (MPa): Meaningless 临界压力(MPa): 无意义 |
| 9.9 | Flash point: 闪点(°C): 1436°C |
| 9.10 | Ignition temperature: This product is not flammable 引燃温度: 本品不易燃 |
| 9.11 | Explosive upper/Lower limit %(V/V) : non-explosive 爆炸上限/下限%(V/V): 非爆炸物 |
| 9.12 | Vapor pressure: 蒸气压: -- |
| 9.13 | Vapor density: >1 (air =1) 蒸气密度: >1 (空气=1) |
| 9.14 | Density: 密度: 5.4 /cm ³ |
| 9.15 | Solubility: The solubility of water is 1.6ppm@29°C, soluble in acid, sodium hydroxide aqueous solution. 溶解性: 水中溶解度为 1.6ppm@29°C, 可溶於酸、氫氧化鈉水溶液。 |

十. Stability and Reactivity

安定性及反應性

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| 10.1 | Invariability: Stable at room temperature under normal pressure 安定性: 常温常压下稳定 |
| 10.2 | Hazardous reactions during special condition: Dangerous polymerization does not occur 特殊狀況下可能之危害反應: 危險聚合反应不会发生。 |
| 10.3 | Hazardous decomposition products: No data available 危害分解产物: 无资料 |
| 10.4 | Materials to avoid: Strong oxidants, strong acids and bases, chlorine compounds, magnesium. 應避免之物資: 強氧化劑、強酸強碱、氯化化合物、鎂。 |
| 10.5 | Other: Avoid dust 其它: 避免产生粉尘 |

十一. Toxicological Information

毒性資料

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| 11.1 | Acute toxicity: 1.Eat 急毒性: 1. 食入 LD50 >5000 mg/kg (rat) (OECD 401) 2. Skin 2. 皮肤 LD50 >2000 mg/kg bw (rat) (OECD 402) 3. Inhalation 3. 吸入 LC50/4h >5.7 mg/l (rat) (OECD 403) |
| 11.2 | Toxicity: No data 亚急性和慢性毒性: 無 |
| 11.3 | Thrill: No data 刺激性: 無 |
| 11.4 | Mutagenicity: No data 致突变性: 無 |
| 11.5 | Teratogenicity: No data 致畸性: 無 |
| 11.6 | Carcinogenicity: No data 致癌性: 無 |
| 11.7 | Others: Zinc is a trace element needed by all tissues of the body to maintain normal physiological functions. Zinc compounds are generally absorbed only in trace amounts in the digestive tract. 其它: 锌为身体各组织所需、维持正常生理功能的微量元素。一般锌化合物在消化道中仅能微量吸收。 |

十二. Ecological Information

生態資料

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| 12.1 | Ecotoxicological toxicity: 生态毒理毒性: 1. Toxicity to fish 1. 对鱼类毒性: LC50 , 0.169 mg/L <i>Oncorhynchus mykiss</i> 2. Toxicity to daphnia and other aquatic invertebrates: 2. 对水蚤和其他水生无脊椎动物毒性: EC50 , 0.413 mg/L <i>Ceriodaphnia dubia</i> NOEC , 0.082 mg/L <i>Daphnia magna</i> 3. Toxicity to algae: 3. 对藻类毒性: IC50 , 0.137 mg/L <i>Pseudokirchneriella subcapitata</i> NOEC , 0.082 mg/L <i>Pseudokirchneriella subcapitata</i> |
| 12.2 | Biodegradability: No data 生物降解性: 無 |
| 12.3 | Non biodegradability: No data 非生物降解性: 無 |
| 12.4 | Bioaccumulation: this product does not have bioaccumulation, zinc is a natural element, and is one of the elements required for the growth and development of all organisms 生物蓄积性: 本品不具有生物蓄积性, 锌为天然元素, 且为所有生物成长发育所需元素之一。 |



十三. Disposal Method

廢棄處置方法

- 13.1 Nature of waste: This product is harmless if handled in a standard manner. Refer to relevant national and local regulations before disposal. Incineration is recommended.
废弃物性质：本产品若按标准的方法处置是没有危害的。处置前应参阅国家和地方有关法规。建议用焚烧法处置。
- 13.2 Waste disposal method: dispose, bury, burn or recycle according to the requirements of relevant national and local laws and regulations.
废弃处理方法：根据国家和地方有关法规的要求处置，掩埋、焚烧或回收处理。
- 13.3 Precautions for waste: it is forbidden to flow directly into the sewer.
废弃注意事项：禁止直接流入下水道

十四. Transport Information

運輸信息

- 14.1 Transport number of dangerous goods No.: UN3077
危险货物运输编号：UN3077
- 14.2 IMDG rule page: --
IMDG 规则页码：--
- 14.3 Classification of transport hazards:  
运输危害分类：9 级，海洋污染物
- 14.3 Packing mark:
包装类别：III
- 14.4 Applicable Name of transport: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,N.O.S.(Zinc oxide)
适用运输名称：氧化锌
- 14.5 Domestic transport regulations: According to the national road traffic safety regulations
国内运输规定：根据国家道路交通安全规则
- 14.6 Other: Less than or equal to 5kg/L packaging, not belonging to the ninth category of dangerous goods.
其它：小于或等于 5kg/L 的包装，不属于第九类的危险品。

十五. Statute Information

法規資料

- 15.1 Occupational Safety and Health Act
职业安全卫生法
- 15.2 Hazardous chemicals labeling and General knowledge rules
危害性化学品标示及通识规则
- 15.3 Road traffic safety rules
道路交通安全规则
- 15.4 Storage, removal and disposal methods and facility standards for business waste
事业废弃物保存清除处理方法及设施标准
- 15.5 Permissible exposure standards for workers in workplaces
劳工作业场所容许暴露标准
- 15.6 Measures for the assessment and grading administration of hazardous chemicals
危害性化学品评估及分级管理办法

十六. Other Information

其他資料

16.1 Statement: This SDS is based on our current knowledge and provides the correct safety precautions required for chemicals. This document is not a guarantee of the characteristics of the product, nor is it a legally binding contractual relationship. This note is for industrial use only and should not be used for pharmaceutical or other purposes.

声明：本 SDS 是以我们现有的知识而撰写，提供了有关化学品所需正确的安全注意事项。此文件并非为产品特性之保证，也不为具有法律效力的合同关系。本说明仅供工业生产使用，不能用作药物或其它用途。

16.2 Reference

参考文献

1. Global Harmonization system for GHS Chemicals
GHS 化学品全球调和制度
2. Classification, Labelling and Packaging of Chemical Substances and Mixtures
化学物质和混合物分类、标示与包装法规 (Regulation(EC)No.1272/200/)
3. Xingang Chemical Laboratory analyzed data
信港化工实验室分析数据

16.3 Drawing by: GUANZHOU BAIYUN XINGGONG CHEMICAL LTD

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16.4 Data review: Xingang Chemical Laboratory, He Songwen

数据审核：信港化工实验室，何颂文

16.5 Tabulating date

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