

无机抗菌粉 化学品安全技术说明书 (MSDS)

**Lamellar Zirconium Phosphate ZrP MSDS (Material Safety Data Sheet)**

Part I: Chemicals 第一部分: 化学品名称		
Chinese of Chemicals:	层状磷酸锆载体	
English of Chemicals:	Lamellar Zirconium Phosphate ZrP	
Chinese Product Name 2:		
English Product Name 2:		
Technical Instruction No. 技术说明书编码:		
CAS No.:		
Part II: Ingredients 第二部分: 成分/组成信息		
Active Ingredients 有效成分:	Content 含量	CAS No.
Phosphate Zr (磷酸锆)	100%	13772-29-7
Part III: Risk Identification 第三部分: 危险性概述		
Risk Type 危险性类别:	/	
Invasion Way 侵入途径:	/	
Health Hazard 健康危害:	Inhalation and Intake are harmless to body, non-irritating. No reports about poisoning by Zirconium or Silver occur till now in the industry. 吸入、摄入对身体无害。不具刺激作用。目前, 工业上尚未见锆、银中毒的报道。	
Environment Hazard 环境危害:	Harmless to environment. 对环境没有危害。	
Explosive Danger 燃爆危险:	This product is not ignitable or irritating. 本品不燃, 不具刺激性。	
Part IV: First-aid Measures 第四部分: 急救措施		
Skin Contact 皮肤接触:	Take off contaminative wear, then wash with flowing water. 脱去污染的衣着, 用流动清水冲洗。	
Eye Contact 眼睛接触:	Immediately lift eyelid, and wash with flowing water or saline. Then see the doctor. 提起眼睑, 用流动清水或生理盐水冲洗。就医。	
Inhalation 吸入:	Rapidly leave the site for fresh air. Keep airway clear. Give oxygen in case of dyspnea, and give artificial respiration if respiratory arrest, then see doctor. 迅速脱离现场至空气新鲜处。保持呼吸道通畅。如呼吸困难, 给输氧。如呼吸停止, 立即进行人工呼吸。就医。	
Ingestion 食入:	Drink plenty of water to vomit, then see doctor. 饮足量温水, 催吐。就医。	
Part V: Fire Protection 第五部分: 消防措施		
Hazard Property 危险特性:	The product does not self-ignite or resolve at high temperature up to 600°C.	



	本身不能燃烧。受高热而不分解（600℃）。
Hazardous Combustion Products 有害燃烧产物:	None 无
Extinguishing Method 灭火方法:	Try to move the container from fire scene to open space. 尽可能将容器从火场移至空旷处。
<b>Part VI: Accidental Leakage Measures 第六部分：泄漏应急处理</b>	
Emergency Treatment 应急处理:	Isolate polluted leakage site to limit access. Emergency personnel is recommended to wear dustproof mask and general work cloths. In the event of little leak, sweep avoiding of dust, collect and send to disposal site for treatment. If mass leak, collect for recycling or send to disposal site for treatment. 隔离泄漏污染区，限制出入。建议应急处理人员戴防尘口罩，穿一般作业工作服。小量泄漏：避免扬尘，小心扫起，收集运至废物处理场所处置。大量泄漏：收集回收或运至废物处理场所处置。
<b>Part VII: Operation Instruction and Storage 第七部分：操作处置与储存</b>	
Operation Instruction 操作注意事项:	Operate in closed space with local ventilation, avoiding dust into the workshop. Operating staff should receive specialized training and abide by operation rule. Operating staff is recommended to wear self-contained dust-proof respirators, safety chemical goggles, virus infiltration overalls, and rubber gloves, to prevent dust. 密闭操作，局部排风。防止粉尘释放到车间空气中。操作人员必须经过专门培训，严格遵守操作规程。建议操作人员佩戴自吸过滤式防尘口罩，戴化学安全防护眼镜，穿防毒物渗透工作服，戴橡胶手套。避免产生粉尘。
Storage 储存注意事项:	Store in shady, cool and ventilate warehouse. Sealed packing. 储存于阴凉、通风的库房。防止阳光直射。包装密封。
<b>Part VIII: Contact Control / Individual Protection 第八部分：接触控制/个体防护</b>	
OEL 职业接触限值	
China 中国 MAC(mg/m3):	Not set standards. 未制定标准。
TLVTN:	Not set standards. 未制定标准。
TLVWN:	Not set standards. 未制定标准。
Monitoring Method 监测方法:	
Engineering Control 工程控制:	Operate in closed space with local ventilation. 密闭操作，注意通风。
Respiratory Protection 呼吸系统防护:	When the dust concentration in air exceeds, please wear self-contained dust-proof respirators. 空气中粉尘浓度超标时，必须佩戴自吸过滤式防尘口罩。
Eye Protection 眼睛防护:	Wear safety chemical goggles. 戴化学安全防护眼镜。
Body Protection 身体防护:	Wear appropriate protective clothing. 穿一般作业防护服。
Hand Protection 手防护:	Wear appropriate protective gloves. 戴一般作业防护手套。
Other Protection 其他防护:	Change and wash overalls. Keep cleanliness and personal hygiene.. 及时换洗工作服。注意个人清洁卫生。

Part IX: Physicochemical Properties 第九部分：理化特性	
Ingredients 主要成分:	Silver and zinc
Appearance 外观与性状:	Odorless and colorless white powder. 无臭、无味的白色粉末。
Average particle size 平均粒径	3µm-10µm
Melting Point 熔点 (°C):	600
Boiling Point 沸点 (°C):	No data. 无资料
Relative Density (water=1) 相对密度 (水=1):	2.5-3.0
Relative Vapor Density (air=1) 相对蒸气密度 (空气=1):	No data. 无资料
Saturated Vapor Pressure 饱和蒸气压 (kPa):	No data. 无资料
Heat of Combustion 燃烧热 (kJ/mol):	Insignificant 无意义
Critical temperature 临界温度 (°C):	Insignificant 无意义
Critical Pressure 临界压力 (MPa):	Insignificant 无意义
Flash Point 闪点 (°C):	Insignificant 无意义
Ignition Temperature 引燃温度 (°C):	Insignificant 无意义
Upper Explosive Limit 爆炸上限 %(V/V):	Insignificant 无意义
Lower Explosive Limit 爆炸下限 %(V/V):	Insignificant 无意义
Solubility 溶解性:	Insoluble in water, ethanol and HC. 不溶于水, 不溶于乙醇, 不溶于烃类。
Main Application 主要用途:	Anti-bacterial additives for functional materials such as plastic, and coating, etc. 用作塑料、涂料等功能材料的抗菌添加剂。
Other Physicochemical Properties 其它理化性质:	Appearance: White powder - Average particle size: 3µm - Surface area: 10-12 m <sup>2</sup> /g - Specific weight of particles: 2.54 g/cm <sup>3</sup>
Part X: Stability and Reactivity 第十部分：稳定性和反应活性	
Stability 稳定性:	Stable and do not resolve after heated 600°C. 十分稳定, 加热 600°C 不分解。

Prohibited Matches / 禁配物:	/
Avoid contacting condition / 避免接触的条件:	/
Harm of Aggregate / 聚合危害:	/
Decomposition Product / 分解产物:	/
<b>Part XI: Toxicity 第十一部分: 毒理学资料</b>	
Acute Toxicity 急性毒性:	LD50: >5000 mg/kg(大鼠经口), 无毒。LC50: 无资料
Subacute & Chronic Toxicity 亚急性和慢性毒性:	Non-toxic 无毒
Irritation 刺激性:	No 无刺激性
Sensitization 致敏性:	No 无致敏性
Mutagenicity 致突变性:	No 无
Teratogenicity 致畸性:	No 无
Carcinogenicity 致癌性:	NO 无
<b>Part XII: Ecology 第十二部分: 生态学资料</b>	
Ecotoxicity 生态毒理毒性:	No influence on environment. 无, 对生态环境没影响。
Biodegradability 生物降解性:	Non-degradable. 不降解。
Non-biodegradable / 非生物降解性:	/
Bio-concentration or Bioaccumulation 生物富集或生物积累性:	/
Other Deleterious Effect 其它有害作用:	No data 无资料。
<b>Part XIII: Disposal 第十三部分: 废弃处置</b>	
Nature of Waste / 废弃物性质:	/
Disposal Method 废弃处置方法:	Dispose under regulation and law of the country or local authority, or contact with the Manufacturer for disposal method. 根据国家和地方有关法规的要求处置。或与厂商或制造商联系, 确定处置方法。
Notice 废弃注意事项:	/
<b>Part XIV: Transportation 第十四部分: 运输信息</b>	
Hazard No. 危险货物编	No data 无资料

号:	
UN No. UN 编号:	No data 无资料
Packing Mark 包装标志:	
Package 包装类别:	Plastic bag 塑料袋
Packing Method 包装方法:	10kg/bag 10kg/袋
Transportation regulation 运输规章:	We hereby further certify that the consignment is not classified as dangerous under the current edition fo IATA DGR 60th Effective 1 Jan, 2019, dangerous goods regulation and all applicable carrier and government regulations and the GGBFS, can be shipped by air. 我们确认货物不属于危险品，符合2019.01.01生效的新版IATA DGR 60 条、危险品货物规章、适用的承运人及政府规章、GGBFS规章，可以空运。
Transportation Notice 运输注意事项:	Packing should be intact and loading stable at delivery. During transportation, container should be guaranteed without leakage, falling, dropping or damage, and no exposure to sun, rain or high temperature. Vehicle should be thoroughly cleaned after transportation. Specified route should be applied while road transportation. 起运时包装要完整，装载应稳妥。运输过程中要确保容器不泄漏、不倒塌、不坠落、不损坏。运输途中应防曝晒、雨淋，防高温。车辆运输完毕应进行彻底清扫。公路运输时要按规定路线行驶。
<b>Part XV: Laws and Regulations 第十五部分：法规信息</b>	
Laws and Regulations 法规信息	Regulations on Safety Management of Hazardous Chemicals (issued by State Council on Feb 17, 1987), Implementing Rules and Regulations on Safety Management of Hazardous Chemicals (No. 677 issued in 1992), Regulations on Safety Usage of Chemicals in Workplace (No. 423 issued in 1996) made the relative regulations for safety usage, production, storage, transportation and loading, etc of hazardous chemicals. 化学危险物品安全管理条例 (1987年2月17日国务院发布)，化学危险物品安全管理条例实施细则 (化劳发[1992] 677号)，工作场所安全使用化学品规定 ([1996]劳部发423号)等法规，针对化学危险品的安全使用、生产、储存、运输、装卸等方面均作了相应规定。
<b>Part XVI Other Information 第十六部分：其他信息</b>	
References 参考文献:	
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