

## 化学品安全技术说明书

### MATERIAL SAFETY DATA SHEETS

#### Bambu Lab 润滑脂

#### Bambu Lab Lubricant Grease

客户名称 : 深圳拓竹科技有限公司  
Prepared for : Shenzhen Tuozhu Technology Co., Ltd.  
地址 : 深圳市前海深港合作区前湾一路 1 号 A 栋 201 室  
Address : Room 201, Building A, No. 1 First Qianwan Road, Qianhai Shengang Cooperation Zone, Shenzhen

编制单位 : 苏州市信测标准技术服务有限公司  
Prepared by : EMTEK (SUZHOU) CO., LTD  
地址 : 苏州市吴中经济开发区郭巷街道淞葭路 1388 号  
Address : No. 1388 Songjia Road, Guoxiang Street, Wuzhong Economic Development Zone, Suzhou  
电话 : +86-0512-80996798  
Tel : +86-0512-80996798  
传真 : +86-0512-80996689  
Fax : +86-0512-80996689

报告编号 : ESZ2412200179C00105RM2  
Report Number : ESZ2412200179C00105RM2  
报告接受日期 : 2024 年 12 月 26 日  
Date of Conduct : Dec. 26, 2024  
报告生成日期 : 2025 年 02 月 12 日  
Date of Report : Feb. 12, 2025



编 制: 朱松妹 审 核: 杜适 签 发: 姜宇锋  
朱松妹, Sally 杜适, Damon 姜宇锋, Jason  
授权签字人

2025 年 02 月 12 日

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



## 化学品安全技术说明书

### MATERIAL SAFETY DATA SHEETS

#### 1 - 化学品及企业标识

#### 1 - Identification of the substance /preparation and of the company/undertaking

|                        |   |   |
|------------------------|---|---|
| 名称                     | : | Bambu Lab 润滑脂   |
| Sample Name            | : | Bambu Lab Lubricant Grease  |
| 型号                     | : | /   |
| Model                  | : | /   |
| 公司名称                   | : | 深圳拓竹科技有限公司  |
| Company Identification | : | Shenzhen Tuozhu Technology Co., Ltd.  |
| 公司地址                   | : | 深圳市前海深港合作区前湾一路 1 号 A 栋 201 室  |
| Company Address        | : | Room 201, Building A, No. 1 First Qianwan Road, Qianhai Shengang Cooperation Zone, Shenzhen |
| 传真                     | : | /   |
| FAX                    | : | /   |
| 电话号码                   | : | +86 15899878284   |
| Telephone              | : | +86 15899878284   |
| 邮箱                     | : | nina.yang@bambulab.com  |
| Email                  | : | nina.yang@bambulab.com  |

#### 2 - 危险性概论

#### 2 - Hazards Identification

##### Hazards Classification

##### 危险性类别

In accordance with regulation (EC) No. 1272/2008(CLP), Classification of the substance or mixture

根据(EC) No. 1272/2008(CLP)标准, 物质或混合物分类的分类

##### Not Classified

##### 无分类

For the full text of the health note (H-) mentioned in this section, see section 16.

本部分提及的健康说明 (H-)全文请见第16部分。

##### Label elements

##### 标签要素

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



|                           |        |
|---------------------------|--------|
| <b>Hazard pictograms</b>  | : None |
| 象形图                       | : 无    |
| <b>Warning words</b>      | : None |
| 警示词                       | : 无    |
| <b>Danger statement</b>   | : None |
| 危险申明                      | : 无    |
| <b>Preventive measure</b> | : None |
| 预防措施                      | : 无    |
| <b>Response</b>           | : None |
| 事故响应                      | : 无    |
| <b>Storage</b>            | : None |
| 安全储存                      | : 无    |
| <b>Disposal</b>           | : None |
| 废弃处置                      | : 无    |

|                                      |  |
|--------------------------------------|--|
| <b>Invasion route</b>                | Inhalation: May cause nose, throat and respiratory system irritation if inhaling concentrated vapor.<br>吸入：如果吸入浓缩的蒸汽，可能会引起咽喉和呼吸系统的兴奋。<br>Skin Contact: May be irritating to skin resulting in redness and itching.<br>皮肤接触：可能会刺激皮肤，导致发红和瘙痒。<br>Eye Contact: Eye contact and high concentrations of solvent vapour may cause moderate eye irritation.<br>眼神接触：眼神接触和高浓度的溶剂蒸气可能会引起中度的眼部骚痛。<br>Symptoms may include redness, lachrymation, stinging and swelling.<br>症状可能包括红肿，流泪，刺痛和肿胀。<br>Ingestion: Ingestion of this product may irritate the gastric tract causing nausea and vomiting. 摄食：摄入本产品可能引起胃灼热，引起恶心和呕吐。 |
| <b>Environment hazard</b>            | : None   |
| 环境危害                                 | : 无  |
| <b>Physical and chemical hazards</b> | : None   |
| 物理和化学危害                              | : 无  |
| <b>Other hazards</b>                 | This substance does not contain PBT/vPvB substances.<br>这种物质不含PBT/vPvB物质。<br>This substance does not contain endocrine disruptors.<br>这种物质不含内分泌干扰物。  |
| 其他危害                                 |  |

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from the date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



**3 - 成分/ 组成信息****3 - Composition / Information on Ingredients**物质  混合物 Substance  Mixture 

| 物质<br>Component/Substance | 浓度 (范围)<br>% by wt | CAS号<br>CAS Number | EC号<br>EC Number |
|---------------------------|--------------------|--------------------|------------------|
| Hydrocarbon alkane        | 90-95              | 68919-17-5         | 272-891-6        |
| Additives                 | 5-10               | 126104-53-8        | /                |

**4 - 急救措施****4 - First Aid Measures****Description of first aid measures****急救措施的说明****If inhaled**

吸入

: If breathed in, remove to fresh air immediately. Keep the respiratory tract smooth. Use oxygen if available. Get medical aid.

如果吸入，迅速脱离现场至空气新鲜处。保持呼吸道通畅。如有必要，给予输氧。就医。

**In case of skin contact**

皮肤接触

: If contact with the dust or powder, remove contaminated clothes quickly and rinse the skin with plenty of water at least 15 minutes. If irritation or pain persists, get medical aid at once.

如果接触到粉尘或粉末，立即脱去污染的衣着，用大量清水冲洗 15 分钟以上。仍感觉刺激或疼痛，立刻就医。

**In case of eye contact**

眼睛接触

: If contact with eyes, flush the eyes with plenty of water or saline water at least 15 minutes. Get medical aid at once.

如果接触到眼睛，用大量清水或生理盐水冲洗 15 分钟以上。立刻就医。

**If swallowed**

食入

: Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical aid at once.

切勿给失去知觉者喂食任何东西。用水漱口。立刻就医。

**Most important symptoms and effects, both acute and delayed**

主要症状和影响，急性和迟发效应

: No available data

无可用数据。

**Indication of any immediate medical attention and special treatment needed**

及时的医疗处理和所需的特殊处理

: Transfer patients to a safe place. Consult a doctor. Present this chemical safety data sheet to the doctor on site.

将患者转移到安全的场所。咨询医生。出示此化学品安全技术说明书给到现场的医生看。

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



的说明和指示

## 5 - 消防措施

### 5 - Fire-Fighting Measures

#### Extinguishing media

灭火介质

#### Suitable extinguishing media

灭火方法及灭火剂

: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

用水雾，耐醇泡沫，干粉或二氧化碳灭火。

#### Special hazards arising from the substance or mixture

源于此物质或混合物的特别的危害

: No available data

无可用数据。

#### Combustion products

燃烧产物

: No available data

无可用数据。

#### Advice for firefighters

给消防员的建议

: As soon as possible, remove the goods from fire to open place. For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, Standing on the windward, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Do NOT use straight streams of water.

尽快将货物从火中移开。对于小火，使用干粉，二氧化碳，水喷雾或耐酒精泡沫。对于大型火灾，站在迎风，使用水喷雾，雾，或耐酒精泡沫。用水喷雾冷却暴露在火中的容器。不要使用直接的水流。

: Wear suitable protective clothing, gloves, eye/face protection and self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. 在压力要求下穿戴合适的防护服、手套、眼/面保护和自备呼吸器，MSHA/NIOSH（认可或等效）和全防护装置。

#### Further information

进一步信息

## 6 - 泄露应急处理

### 6 - Leakage emergency treatment

**Personal precautions, protective equipment and emergency procedures** : Use personal protective equipment. Avoid dust generation. Avoid inhalation of vapors, aerosols or gases. To ensure adequate ventilation. Evacuate personnel to a safe area. Avoid inhalation of dust.

作业人员防护措施、防护装备和应急处置程序 使用个人防护装备。避免粉尘生成。避免吸入蒸气、气雾或气体。保证充分的通风。将人员疏散到安全区域。避免吸入粉尘。

**Environmental precautions** : Do not let the product enter the sewer.

环境保护措施 不要让产品进入下水道。

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



**Methods and materials for containment and cleaning up**  
泄漏化学品的收容、清除方法及所使用的处置材料

FOR LARGE SPILLS: Collect spillage with suitable tools, and then place in container for recycle or disposal according to local regulations. FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

对于大量溢出物:用合适的工具收集溢出物,然后放入容器中根据当地法规进行回收或处理。对于少量泄漏:用吸收剂如粘土、沙子或其他合适的材料吸收残留物。放置在不泄漏的容器中,并密封以进行适当处置。

**Reference to other sections**  
参考其他部分

: For disposal see section 13.  
丢弃处理请参阅第13章。

## 7 - 操作处置与储存

## 7 - Handling and Storage

**Precautions for safe handling** : Use local exhaust ventilation to protect against dust and fume inhalation. If workers are exposed to dust, provide appropriate respiratory, eye and skin protection. An eyewash station should be readily available to areas of use.

安全操作的注意事项 使用局部排气通风来防止灰尘和烟雾吸入。如果工作人员暴露在灰尘中,提供适当的呼吸,眼睛和皮肤保护。应该在使用区域安装随时可用的洗眼装置。

**Conditions for safe storage, including any incompatibilities** : Store in a closed container when possible to prevent accidental dust generation and to prevent possible product contamination. Protect containers from physical damage. Keep dry and isolated from acids, caustics, halogenated compounds and oxidizers. Do not store near combustible materials. Guard against dust accumulation and dust becoming airborne. Keep container tightly closed in a cool, well-ventilated place. Keep the sample as a easy identification. Equip with relevant type and quantities of the extinguishment instruments.

安全储存的条件,包括任何不兼容性 尽可能存放在密闭的容器中,以防止意外的灰尘产生并防止可能的产品污染。保护容器免受物理损坏。保持干燥,与酸,苛性碱,卤化物和氧化剂分离。不要存放在易燃材料附近。防止灰尘积聚和粉尘的空气传播。储存于阴凉,干燥,通风的库房。保持样品容易识别。配备相应品种和数量的消防器材。

**Specific end use(s)** : No available data.  
特定用途 无可用数据

## 8 - 接触控制和个体防护

## 8 - Contact control and personal protection

**Allowable concentration** : No available data.  
容许浓度 无可用数据

**Monitoring method** : No available data.  
检测方法 无可用数据

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



|  |                     |  |
|--|---------------------|--|
| <b>Components workplace parameters</b> | <b>with control</b> | In accordance with good industrial and safety regulations. Wash hands before rest and at the end of work.<br>按照良好工业和安全规范操作。休息前和工作结束时洗手。  |
| <b>暴露控制</b>                            |                     |  |
| <b>Personal protective equipment</b>   |                     |  |
| <b>个体防护装备</b>                          |                     |  |
| <b>Eye Protection</b>                  | :                   | If needed in this environment, use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).<br>如果该环境下需要, 请使用经官方标准如NIOSH (美国) 或 EN 166(欧盟) 检测与批准的设备防护眼部。   |
| <b>眼睛防护</b>                            | :                   |  |
| <b>Skin protection</b>                 | :                   | Wear suitable protective gloves.<br>穿戴适当的防护手套。   |
| <b>皮肤保护</b>                            | :                   |  |
| <b>Body Protection</b>                 | :                   | Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.<br>根据危险物质的类型, 浓度和量, 以及特定的工作场所选择身体保护措施。, 防护设备的类型必须根据特定工作场所中的危险物的浓度和数量来选择。   |
| <b>身体保护</b>                            | :                   |  |
| <b>Respiratory protection</b>          | :                   | If the hazard assessment shows the need to use air-purifying gas masks, use the full-cover multi-functional particulate respirator N100 type (US) or P3 type (EN 143) gas mask as an engineering control candidate. If the gas mask is the only way to protect it, use a full hooded gas masks. Respirators use tested respirators and parts through government standards such as NIOSH (US) or CEN (EU).<br>如危险性评测显示需要使用空气净化的防毒面具, 请使用全面罩式多功能微粒防毒面具N100型 (US) 或P3型 (EN 143) 防毒面具筒作为工程控制的候补。如果防毒面具是保护的唯一方式, 则使用全面罩式送风防毒面具。呼吸器使用经过测试并通过政府标准如NIOSH (US) 或CEN (EU) 的呼吸器和零件。 |
| <b>呼吸系统防护</b>                          | :                   |  |
| <b>Other protection</b>                | :                   | No smoking, dining and drinking water in the workplace. Keep good habit of hygiene. Shower and change clothes after work.<br>工作现场禁止吸烟、进食和饮水。保持良好的卫生习惯。下班以后要沐浴和更换衣服。  |
| <b>其他防护</b>                            | :                   |  |

## 9 -理化特性

## 9 - Physical and Chemical Properties

|                       |   |                    |                |   |                    |
|-----------------------|---|--------------------|----------------|---|--------------------|
| <b>物理形态</b>           | : | 膏状液体。              | <b>气味</b>      | : | 略有气味。              |
| <b>Physical state</b> | : | Creamy liquid.     | <b>Odor</b>    | : | Slight odor.       |
| <b>颜色</b>             | : | 白色。                | <b>pH 值</b>    | : | 无数据可获得。            |
| <b>Color</b>          | : | White.             | <b>pH</b>      | : | No data available. |
| <b>熔点</b>             | : | 无数据可获得。            | <b>密度</b>      | : | 无数据可获得。            |
| <b>Melting Point</b>  | : | No data available. | <b>Density</b> | : | No data available. |

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



|   |                                   |  |                                 |
|---|-----------------------------------|--|---------------------------------|
| 沸点或初始沸点<br><b>Boiling point or initial boiling point and boiling range (°C)</b> | : 无数据可获得。<br>No data available.   | 闪点<br><b>Flashing Point</b>  | : >70°C.<br>>70°C.              |
| 爆炸上限 <b>Explosion Upper Limits</b>  | : 无数据可获得。<br>No data available.   | 爆炸下限 <b>Explosion Lower Limits</b>   | : 无数据可获得。<br>No data available. |
| 电阻率<br><b>Electrical resistivity</b>  | : 无数据可获得。<br>No data available.   | 导热系数 <b>Heat conductivity</b>  | : 无数据可获得。<br>No data available. |
| 着火点<br><b>Ignition temperature</b>  | : 无数据可获得。<br>No data available.   | 分解温度<br><b>Decomposition temperature</b>   | : 无数据可获得。<br>No data available. |
| 粒子特性<br><b>Particle characteristics</b>   | : 无数据可获得。<br>No data available.   | 运动粘度( <b>mm<sup>2</sup>/s</b> )<br><b>Kinematic viscosity (mm<sup>2</sup>/s)</b> | : 无数据可获得。<br>No data available. |
| 溶解度<br><b>Solubility</b>  | : 水中不溶解。<br>Not soluble in water. |  |                                 |

## 10 - 稳定性和反应性

### 10 - Stability and Reactivity

|                                |  |
|--------------------------------|--|
| <b>Reactivity</b>              | : No available data.<br>无可用数据。                                 |
| <b>Chemical stability</b>      | : Stable under recommended storage conditions.<br>正常情况下稳定      |
| <b>Conditions to avoid</b>     | : Electrostatic discharge, heat, humidity, etc.<br>静电放电、热、潮湿等。 |
| <b>Incompatible materials</b>  | : No available data.<br>无可用数据。                                 |
| <b>Hazardous decomposition</b> | : No available data.<br>无可用数据。                                 |
| <b>products 危险的分解产物</b>        |  |

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



## 11 - 毒理学信息

## 11 - Toxicological Information

### Information on toxicological effects

**Acute Toxicity** : No available data.

急性毒性 无可用数据。

**Skin corrosion/irritation** : No available data.

皮肤腐蚀/刺激性 无可用数据。

**Serious eye damage/eye irritation** : No available data.

严重眼伤害/眼刺激 无可用数据。

**Respiratory or skin Sensitization** : No available data.

呼吸系统或皮肤致敏作用 无可用数据。

**Germ cell mutagenicity** : No available data.

生殖细胞致变性 无可用数据。

**Carcinogenicity** : IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

致癌性 IARC: 该产品中不存在大于或等于0.1%的组分被IARC鉴定为可能的、可能的或证实的人类致癌物。

**Reproductive toxicity** : No available data.

生殖毒性 无可用数据。

**Specific target organ toxicity-single exposure** : No available data.

特定靶器官毒性-单次暴露 无可用数据。

**Specific target organ toxicity-repeated exposure** : No available data.

特定靶器官毒性-长期暴露 无可用数据。

**Aspiration hazard** : No available data.

吸入危害 无可用数据。

**Information on other hazards** : This substance does not contain endocrine disruptors.

这种物质不含内分泌干扰物。

**Endocrine disrupting properties**

关于其他危险的资料

内分泌干扰物

**Additional information** : No available data.

其他信息 无可用数据。

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



**12 - 生态学信息****12 - Ecological Information**

|   |   |  |
|---|---|--|
| <b>Toxicity</b>                           | : | No available data.<br>无可用数据  |
| <b>Persistence and degradability</b>      | : | No available data.<br>无可用数据  |
| <b>Bioaccumulative potential</b>          | : | No available data.<br>无可用数据  |
| <b>Mobility in soil</b>                   | : | No available data.<br>无可用数据  |
| <b>Results of PBT and vPvB assessment</b> | : | No available data.<br>无可用数据  |
| <b>PBT 和 vPvB 的结果评价</b>                   | : |  |
| <b>Endocrine disrupting properties</b>    | : | This substance does not contain endocrine disruptors.<br>这种物质不含内分泌干扰物。 |
| <b>Other adverse effects</b>              | : | T No available data.<br>无可用数据  |

**13 - 废弃处置****13 - Disposal Considerations****Waste disposal methods****废弃处置方法**

|                               |   |   |
|-------------------------------|---|---|
| <b>Product</b>                | : | This product is not regarded as hazardous waste, as defined by Regulation (EC) No.1272/2008.<br>根据法规(EC)第1272/2008号，该产品不被视为危险废物。                              |
| <b>Waste disposal methods</b> | : | Refer to relevant national and local regulations before disposal.<br>回收利用或参阅国家和地方有关法规。  |
| <b>Contaminated packaging</b> | : | Return the container to the manufacturer or dispose of it according to national and local regulations.<br>将容器返还生产商或按照国家和地方法规处置。                               |
| <b>Attention abandoned:</b>   | : | Wear corresponding protective equipment when handling. Do not dump products into city sewers. floors. or natural water sources.<br>请不要将产品倒入城市下水道，地表或者自然生态的水源中 |

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



**14 - 运输信息****14 - Transport Information****Transport Attenions:****运输注意事项:**

Please select the appropriate transportation method and corresponding transportation and storage conditions according to the nature of the chemical. The product can be transported by air, land or sea. The means of transportation should be equipped with corresponding types and quantities of fire extinguishing materials and leakage emergency treatment equipment. Do not mix with antioxidants, acids, alkali metals and amines. Prevent direct sunlight, rain and high temperature transportation. When staying halfway, please stay away from fire, heat and high temperature. Road transportation should follow the prescribed route, do not stop in residential areas and densely populated areas.

Please refer to section 7-HANDING AND STORAGE also, and requirements of the IATA/ICAO/PG .

请根据化学品的性质选择适当的运输方式和相应的运输和储存条件。该产品可以空运，陆运或海运方式运输。运输工具应配备相应品种和数量的灭火材料和泄漏应急处理设备。禁止与抗氧化剂，酸，碱金属和胺混合使用。防止阳光直射，雨淋和高温运输。中途停留时，请远离火，热和高温。公路运输时要按规定路线行驶，勿在居民区和人口稠密区停留。

具体请参照ADR-RID/PG , IMO/IMDG/PG , IATA/ICAO/PG 以及第七部分的要求。

**Maritime transport IMDG****国际海运危险货物规则**

|                      |   |                     |
|----------------------|---|---------------------|
| IMDG Code            | : | Not hazardous goods |
| 危险类别                 | : | 非危害品                |
| UN-Number            | : | /                   |
| UN 编号                | : | /                   |
| Packing group        | : | /                   |
| 包装组别                 | : | /                   |
| Proper shipping name | : | /                   |
| 运输名称                 | : | /                   |

**DOT regulations****运输部条例**

|                      |   |                     |
|----------------------|---|---------------------|
| Hazard class         | : | Not hazardous goods |
| 危险类别                 | : | 非危害品                |
| UN-Number            | : | /                   |
| UN 编号                | : | /                   |
| Packing group        | : | /                   |
| 包装组别                 | : | /                   |
| Proper shipping name | : | /                   |
| 运输名称                 | : | /                   |

**Land transport ADR/RID(cross-border)****陆路运输条例**

|              |   |                     |
|--------------|---|---------------------|
| Hazard class | : | Not hazardous goods |
|--------------|---|---------------------|

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



危险类别 非危害品

UN-Number : /

UN 编号 : /

Packing group : /

包装组别 : /

Proper shipping name : /

运输名称 : /

#### Air transport ICAO-TI and IATA-DGR

航空运输 国际民航组织和国际航空运输协会危险货物规则

ICAO-TI-II class : Not hazardous goods

危害等级 : 非危害品

UN/ID Number : /

联合国编号 : /

Packing group : /

运输包装 : /

Proper shipping name : /

合适运输名称 : /

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

防止船舶污染国际公约73/78附件II和散装危险化学品船舶载运的建设和设备的国际代码

Not available data

无可可用数据

marine pollutant : Non : YES

海洋污染物 : 是

### 15 - 法规信息

### 15 - Regulatory Information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

针对物质或混合物的安全、健康和环境的特别的法规/法律

German regulations concerning the classification of hazard for water(WGK) : Class 1  
类别 1

德国关于水危害分类的规定 (WGK)

Substance of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH) : Not listed  
不列入

REACH法规(EC) No. 1907/2006的高度关注物

The conditions of restrictions according to Regulation (EC) No. 1907/2006 (REACH) Article 67 and Annex XVII for the manufacturing, placing on the market and use must be observed : Not listed  
不列入

法规 (EC) 1907/2006号 (REACH) 第67条和附件XVII对

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



制造、投放市场和使用上必须遵守的限制条件

Regulation (EC) No. 1907/2006 (REACH) Annex

XVII( requiring Authorisation for use)

法规 (EC) 1907/2006号 (REACH) 附件XVII(需要授权才能使用物质)

Regulation (EC) No. 1907/2006 (REACH)-Pre-registered substance.

法规 (EC) 1907/2006号 (REACH) 预注册物质

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer

法规 (EC) 1005/2009号关于破坏臭氧层物质

Regulation (EC) No 649/2012 concerning the export and import of dangerous chemicals, Annex I

法规 (EC) 649/2012号关于危险化学品的出口、进口, 附录I

Not listed

不列入

Not listed

不列入

Not listed

不列入

Not listed

不列入

ELINECS(European List of Notified Chemical Substances)

ELINECS (欧洲化学品通报清单)

Particular provisions

特别规定

Not listed

不列入

No available data.

无可用数据

### Chemical Safety Assessment

化学品安全评估

No available data.

无可用数据

## 16 - 其他信息

### 16 - Other Information

ACGIH

: American Conference of Governmental Industrial  
美国政府工业学家会议

ADR

: European Agreement concerning the International Carriage of Dangerous  
Goods by Road  
欧洲关于危险国际货物公路运输的协议

CAS

: Chemical Abstracts Service  
化学文摘社

CLP

: Classification Packaging and Labelling  
分类、包装、标签

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



|          |  |
|----------|--|
| EC       | : European Commission<br>欧洲委员会   |
| ECHA     | : European Chemicals Agency<br>欧洲化学品中心   |
| EINECS   | : The European Inventory of Existing Commercial Chemical Substances<br>欧洲现有商业化学物质的目录   |
| GHS      | : Globally Harmonised System of Classification and Labelling of Chemicals<br>全球化学品分类和标签制度                                      |
| IARC     | : International Agency for Research on Cancer<br>国际癌症研究机构  |
| IATA     | : International Air Transport Association<br>国际航空运输协会  |
| IBC Code | : International code for the construction and equipment of ships carrying dangerous chemical in bulk<br>散装危险化学品船舶载运的建设和设备的国际代码 |
| ICAO     | : International Civil Aviation Organization<br>国际民航组织  |
| IMDG     | : International Maritime Dangerous Goods<br>国际海运危险货物规则   |
| IC50     | : Inhibitory Concentration fifty<br>半数抑制浓度   |
| LC50     | : Lethal Concentration fifty<br>半数致死浓度   |
| LD50     | : Lethal Dose fifty per cent.<br>半数致死剂量  |
| MARPOL   | : International Convention for the Prevention of Pollution From Ships<br>防止船舶造成污染国际公约  |
| REACH    | : Registration Evaluation And Authorisation Of Chemicals<br>化学品的注册, 评估和授权  |
| RID      | : Regulations Relating to International Carriage of Dangerous Goods by Rail<br>国际危险货物铁路运输规则                                    |
| RTECS    | : Registry of Toxic Effects of Chemical Substances<br>化学品毒性危害注册  |
| STEL     | : Short term exposure limit<br>短时间暴露限值   |
| TWA      | : Time-Weighted Average<br>时间加权平均值   |

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



|                   |   |
|-------------------|---|
| OSHA              | : Occupational Safety and Health Administration<br>职业安全与健康管理  |
| NIOSH             | : National Institute for Occupational Safety and Health<br>国家职业安全与健康研究所   |
| TLV-TWA           | : Threshold Limit Value-Time Weighted Average<br>容许最高浓度-时间加权平均值   |
| TLV-STEL          | : Threshold Limit Value-Short Term Exposure Limit<br>容许最高浓度-短时间暴露限值   |
| PEL               | : Permissible Exposure Limit<br>容许暴露限值  |
| 日期                | : 2025-02-12  |
| Date              | : Feb. 12, 2025   |
| 数据审核单位            | : 苏州市信测标准技术服务有限公司   |
| Data Audit Units  | : EMTEK (SUZHOU) CO., LTD   |
| 缩写                | : EC: European Inventory of Existing Commercial chemical Substances<br>CAS : Chemical Abstracts Service (division of the American Chemical Society)   |
| Abbreviation      | : EC: European Inventory of Existing Commercial chemical Substances<br>CAS : Chemical Abstracts Service (division of the American Chemical Society)   |
| 术语                | : /   |
| The term          | : /   |
| 其他信息              | : 以上信息基于数据准确的基础上, 因为此信息可能在我们无法控制的情况下被应用, 或者被修改, 对此我们不负任何责任。此信息在收件人决定对材料的专有目的的情况下而配置。  |
| Other Information | : The above information based on accurate data, because this information may be applied under conditions beyond our control, or is modified, and we do not bear any responsibility. This information determines the purpose of the case of proprietary materials and configurations in the recipient. |

声明: 报告 ESZ2412200179C00105RM1 作废, 由报告 ESZ2412200179C00105RM2 所取代

Declaration: Report ESZ2412200179C00105RM1 was repealed and replaced by report ESZ2412200179C00105RM2

\*\*\*The End of MSDS\*\*\*

\*\*\* MSDS 结束\*\*\*

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



## 声明 Statement

1. 本检测报告首页所列信息中除样品来源、接样日期、检测日期、检测结果和检测结论外，均由委托方提供，委托方对样品的代表性和资料的真实性负责，本实验室不承担任何相关责任。

The information as listed on the first page of this test report was all provided by the client except the sample from, date received, test period, test results and test conclusion. The client shall be responsible for the representativeness of sample and authenticity of materials, for which EMTEK shall bear no responsibilities.

2. 本检测报告以实测值进行符合性判定，未考虑不确定度所带来的风险，特别约定、标准或规范中有明确规定的除外。此种判定方式所带来的风险由客户自行承担，本实验室不承担相关责任。

The judgment method of determining the conformity in this test report is according to the measured value without considering the risk caused by uncertainty, unless otherwise clearly stipulated in special agreement, standard or specification. The client shall assume the risk caused by the judgment method, and EMTEK shall not bear related responsibilities.

3. 检测报告无批准人签字及“检验检测专用章”无效，未经本实验室书面同意，不得整体或部分复制本报告。

The test report is effective only with both signature and specialized stamp. Without written approval of EMTEK, this report can't be reproduced in full or in part.

4. 本检测报告的检测结果仅对送测样品负责，未加盖资质认定标志的检测报告不对社会具有公证证明作用，对于检测数据、结果的使用，所产生的直接或间接损失及一切法律后果，本实验室不承担任何经济和法律责任。

This test data is only responsible for the tested sample. The data and results provided by the report without CMA accreditation are not to prove to the society, and EMTEK is not responsible for any economic and legal responsibility for the use of the test data, the direct or indirect losses resulting from the use of the test and all legal consequences.

5. 本检测报告中检测项目标注有下划线则该项目不在本实验室资质认定能力范围内，该项目检测结果仅作为客户委托、科研、教学或内部质量控制等目的使用。

The underlined test item in the report is out of the scope of CMA accreditation. The test result only used for client's requirement, scientific researching, teaching or internal quality control.

6. 其它声明请查阅报告页脚及书面报告背页。

For other statements, please refer to the footer of the report.

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



## 签发测试报告条款

### Conditions of Issuance of Test Reports

1. 苏州市信测标准技术服务有限公司（以下简称[本公司]）为提供符合下述条款的测试和报告，而接受有关样品和货品。本公司基于下述条款提供服务，下述条款为本公司与申请服务的个人，企业或公司（以下简称[客户]）的协议。  
*All samples and goods are accepted by the EMTEK(Suzhou) Co., Ltd. (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the Company and any person, firm or company requesting its services (the "Clients").*
2. 由此测试申请所发出的任何报告（以下简称[报告]），本公司会严格为客户保密。未经本公司的书面同意，报告的整体或部分不得复制，也不得用于广告或授权的其他用途。然而，客户可以将本公司印制的报告或认可的副本，向其客户、供货商或直接相关的其他人出示或提交。除非相关政府部门、法律或法规要求，否则未经客户同意，本公司不得将报告内容向任何第三方讨论或披露。  
*Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.*
3. 除非相关政府部门、法律或法院要求，否则未经公司预先书面同意，本公司毋需，也并无义务到法院对有关报告作证。  
*The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.*
4. 如果本公司确定报告被不当地使用，本公司保留撤回报告的权利，并有权要求其它适当的额外赔偿。  
*In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.*
5. 本公司接受样品进行测试的前提是，该测试报告不能作为针对本公司法律行动的依据。  
*Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.*
6. 如因使用本公司中心任何报告内的资料，或任何传播信息所描述与之有关的测试或研究导致的任何损失或损害，本公司概不负责。  
*The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.*
7. 若需要在法院审理程序或者仲裁过程中使用测试报告，客户必须在提交测试样品前将该意图告知本公司。  
*Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.*
8. 该测试报告的支持数据和信息本公司保存 10 年。个别评审机构有特别要求的，检测数据和报告的保存期可依情况变动。一旦超过上述提交的保存期限，数据和信息将被处理掉。任何情况下，本公司不必提供任何被处理的过期数据或信息。即使本公司事先被告知可能会发生相关的损害，本公司在任何情况下也不必承担任何损害，包括（但不限于）补偿性赔偿、利润损失、数据丢失、或任何形式的特殊损害、附带损害、间接损害、从属损害或任何违反约定、违反承诺、侵权（包括疏忽）、产品责任或其他原因的惩罚性损害。  
*Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of ten years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.*

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

