

## 1、Supplier information 供货商资料

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| Terminal 物品名称: Nickel Plated 镀镍  |
| Supplier name: BRIGHT-E ELECTRONIC TECHNOLOGY LIMITED<br>供货商名称 : 东莞市华晶电子有限公司   |
| Address: No.1 He Shi Road, Huang Ni Tang, ChangPing Town, DongGuang City, GuangDong Province<br>地址 : 广东省东莞市常平镇黄泥塘禾石路1号                                 |
| Emergency contact person: Mr. Dong 紧急联络人: 董先生<br>Emergency contact number: 0769-81089582 Fax: 0769-81089581<br>紧急联系电话: 0769-81089582 传真: 0769-81089581 |

## 2、Component identification data 成份辨识资料

| English and Chinese name: gold plating 中英文名称 : 镀金 |           |              |
|---|-----------|--------------|
| Component name 成份名称                               | CAS NO.   | Content(%)含量 |
| Ni  | 7440-02-0 | 99.97%       |
| Pb  | 7439-92-1 | 0.0025%      |
| Other   | /         | 0.0275%      |

## 3、Hazard identification data 危害辨识数据

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| The most important harmful effect 最重要危害效应  |
| Health hazard effect: when liquid is absorbed by inhalation, ingestion and contact with skin, it can cause nickel dermatitis, and should not contact with human skin for a long time. Long-term inhalation of nickel powder can cause respiratory irritation, chronic rhinitis and even nasal septum perforation, which can cause allergic pneumonia, bronchitis and asthma, etc.<br>健康危害效应: 液体时通过吸入、食入、与皮肤接触途径被吸收, 可引起镍皮炎, 不可长时间与人体皮肤接触, 长期吸入镍粉可致呼吸道刺激、慢性鼻炎, 甚至发生鼻中隔穿孔, 可引起变态反应性肺炎、支气管炎、哮喘等 |
| Environmental impact: Pb<100Ppm, Cd<5Ppm, Hg<2Ppm, Cr(+6)<5Ppm,<br>环境影响: Pb<100Ppm, Cd<5Ppm, Hg<2Ppm, Cr (+6)<5Ppm,  |
| Physical and chemical hazards: Nickel has almost no acute toxicity, and its powder has high chemical activity. When exposed to air, it will undergo oxidation reaction, even spontaneous combustion, and react with strong acid to release hydrogen. Dust is flammable and can form explosive mixture with air.<br>物理性及化学危害: 金属镍几乎没有急性毒性, 其粉体化学活性较高, 暴露在空气中会发生氧化反应, 甚至自燃, 遇强酸反应, 放出氢气。粉尘可燃, 能与空气形成爆炸性混合物。  |
| Special hazards: Nickel has almost no acute toxicity, and its powder has high chemical activity. When exposed to air, it will undergo oxidation reaction, even spontaneous combustion, and react with strong acid to release hydrogen. Dust is flammable and can form explosive mixture with air.<br>特殊危害: 金属镍几乎没有急性毒性, 其粉体化学活性较高, 暴露在空气中会发生氧化反应, 甚至自燃, 遇强酸反应, 放出氢气。粉尘可燃, 能与空气形成爆炸性混合物。  |

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| <p>Main symptoms: Nickel has almost no acute toxicity, and its powder has high chemical activity. When exposed to air, it will undergo oxidation reaction, even spontaneous combustion, and react with strong acid to release hydrogen. Dust is flammable and can form explosive mixture with air.</p> <p>主要症状: 金属镍几乎没有急性毒性, 其粉体化学活性较高, 暴露在空气中会发生氧化反应, 甚至自燃, 遇强酸反应, 放出氢气。粉尘可燃, 能与空气形成爆炸性混合物。</p> |
| <p>Hazard classification of articles: non-toxic, belonging to RoHS-compliant environmental protection products</p> <p>物品危害分类: 无具毒性, 属符合 RoHS 的环保产品</p>   |

**4、 first aid treatment 急救措施**

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| <p>Different exposures One of the ways First aid method: 不同暴露途径之急救方法</p>  |
| <p>Inhalation: Quickly transfer the site to fresh air and keep the respiratory tract unobstructed.<br/>If breathing is difficult, give oxygen. If breathing stops, give artificial respiration for medical treatment.</p> <p>吸入: 迅速转移现场至空气新鲜处, 保持呼吸道通畅, 如呼吸困难, 给输氧, 如呼吸停止, 即进行人工呼吸就医。</p> |
| <p>Skin contact: Take off contaminated clothes and wash skin thoroughly with soapy water and clear water.</p> <p>皮肤接触: 脱去被污染的衣着, 用肥皂水和清水彻底冲洗皮肤。</p>   |
| <p>Eye contact: Immediately lift eyelid, rinse thoroughly with plenty of running water or normal saline for at least 15 minutes, and seek medical attention.</p> <p>眼睛接触: 立即提起眼睑, 用大量流动清水或生理盐水彻底冲洗至少 15 分钟并就医。</p>  |
| <p>Intake: Drink plenty of warm water, induce vomiting and seek medical advice.</p> <p>食入: 饮足量温水, 催吐并就医。</p>  |
| <p>The most important harmful effects: none</p> <p>最重要危害效应: 无</p>   |

**5、 Fire extinguishing measures 灭火措施**

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| <p>Applicable fire extinguishers: fire water, sand and dry powder fire extinguishers.</p> <p>适用灭火器: 消防水、沙土、干粉灭火器。</p>   |
| <p>Special hazards may be encountered when extinguishing fire: Possible decomposition of nickel oxide</p> <p>灭火时可能遭遇特殊危害: 可能分解氧化镍</p>   |
| <p>Special fire extinguishing program: none</p> <p>特殊灭火程序: 无</p>  |
| <p>Special protective equipment for firefighters: Firefighters must wear filter-type gas masks (full-face masks) or isolated respirators, and wear full-body fire protection and gas protection suits to extinguish fires at windward places.</p> <p>消防人员之特殊防护设备: 消防人员必须佩戴过滤式防毒面具(全面罩)或隔离式呼吸器、穿全身防火防毒服, 在上风处灭火。</p> |

**6、Leakage treatment method 泄漏处理方法**

Personal precautions: isolate leakage and pollution areas, limit access, and cut off fire sources; emergency response personnel are advised to wear self-priming filter dust masks and anti-virus clothing. Do not come into direct contact with leakage. Collect it in a dry, clean and covered container with spark-free tools, transfer it for recycling, and hand it over to a professional recycling company for unified treatment.

个人应注意事项:隔离泄漏污染区,限制出入,切断火源;建议应急处理人员戴自吸过滤式防尘口罩,穿防毒服。不要直接接触泄漏物。使用无火花工具收集于干燥、洁净、有盖的容器中,转移回收,固体交专业回收公司统一处理

Leakage treatment method: isolate the leakage pollution area, limit access and cut off the fire source; it is recommended that emergency personnel wear self-priming filter dust mask and anti-virus clothing. Do not come into direct contact with leakage. Collect it in a dry, clean and covered container with spark-free tools, transfer it for recycling, and hand it over to a professional recycling company for unified treatment.

泄漏处理方法:隔离泄漏污染区,限制出入,切断火源;建议应急处理人员戴自吸过滤式防尘口罩,穿防毒服。不要直接接触泄漏物。使用无火花工具收集于干燥、洁净、有盖的容器中,转移回收,固体交专业回收公司统一处理;

Cleaning method: isolate the leakage and pollution area, limit access and cut off the fire source; it is recommended that emergency personnel wear self-priming filter dust mask and anti-virus clothing. Do not come into direct contact with leakage. Collect it in a dry, clean and covered container with spark-free tools, transfer it for recycling, and hand it over to a professional recycling company for unified treatment.

清理方法:隔离泄漏污染区,限制出入,切断火源;建议应急处理人员戴自吸过滤式防尘口罩,穿防毒服。不要直接接触泄漏物。使用无火花工具收集于干燥、洁净、有盖的容器中,转移回收,固体交专业回收公司统一处理;

**7、Safe disposal and storage method 安全处置与储存方法**

Disposal: Keep the liquid sealed, store and move to reduce collision or extrusion, and keep it in a dry and ventilated place. Operators should receive professional training.

处置:液体密封储存放置移动时减少碰撞或挤压,尽放在干燥,通风处,操作人员要经过专业培训。

Storage: Do not place it in the same place as organic oxides, and avoid placing it in high-temperature and humid places

储存:不可与有机氧化物放在同一场地,避免高温潮湿的地方放置

**8、Exposure prevention measures 暴露预防措施**

Engineering control: none 工程控制:无

Parameter control: none 参数控制:无

Personal protective equipment: gloves, masks and rubber shoes. 个人防护设备:手套,面具,胶鞋。

Respiratory protection: You should wear self-priming filter dust mask when you may come into contact with its dust.呼吸防护:可能接触其粉尘时,应该佩戴自吸过滤式防尘口罩。

Eye protection: Wear chemical safety glasses. 眼睛防护:戴化学安全防护眼镜

Hand protection: wear chemical gloves. 手部防护:戴防化学品手套。

Skin and body protection: penetrating gas type anti-virus clothing. 皮肤及身体防护:穿透气型防毒服。

Hygienic measures: It is strictly forbidden to eat in the workplace. After work, take a shower and change clothes, pay attention to personal hygiene, and deal with skin scratches at work in time.

卫生措施:严禁在工作场所进食,工作完毕,淋浴更衣,注意个人清洁卫生,工作时皮肤划伤应及时处理。

## 9、 Physical and chemical properties 物理及化学性质

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| Material status: off-white metal   | 物质状态: 灰白色金属              |
| Form: solid  | 形态: 固态                   |
| Color: gray and white  | 颜色: 灰白色                  |
| Smell: None  | 气味: 无                    |
| Boiling point/boiling point range: 2732°C  | 沸点/沸点范围: 2732°C          |
| Decomposition temperature: insoluble in concentrated nitric acid, soluble in dilute nitric acid<br>分解温度: 不溶于浓硝酸, 溶于稀硝酸 |                          |
| Natural temperature: none  | 自然温度: 无                  |
| Vapor pressure: none   | 蒸气压: 无                   |
| Density: 8.9g/cm <sup>3</sup>  | 密度: 8.9g/cm <sup>3</sup> |
| Solubility: 1453°C   | 溶解度: 1453°C              |

## 10、 Stability and reactivity 安定性及反应性

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| Stability: stability   | 安定性: 稳定 |
| Possible hazardous reactions under special conditions: no data available 特殊状况下可能危害反应: 无资料  |         |
| Conditions to be avoided: heat source, water source and strong oxidant 应避免状况: 热源, 水源. 强氧化剂 |         |
| Substances to be avoided: None 应避免之物质: 无   |         |

## 11、 Toxicity data 毒性资料

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| Acute toxicity: mutagenicity: neoplastic transformation: hamster embryo 5mol/L .. Reproductive toxicity: the lowest oral poisoning dose (TDL 0) of rats: 158 mg/kg (multi-generation medication), embryo poisoning, fetal rat death. Carcinogenicity: IARC Carcinogenicity Review: Animals are positive reactions.<br>急毒性: 致突变性: 肿瘤性转化: 仓鼠胚胎 5 mol/L。生殖毒性: 大鼠经口最低中毒剂量 (TDLO): 158mg/kg(多代用药), 胚胎中毒, 胎鼠死亡。致癌性: IARC 致癌性评论: 动物为阳性反应                              |
| Sensitivity: mutagenicity: neoplastic transformation: hamster embryo 5mol/L .. Reproductive toxicity: the lowest oral poisoning dose (TDL 0) of rats: 158 mg/kg (multi-generation medication), embryo poisoning, fetal rat death. Carcinogenicity: IARC Carcinogenicity Review: Animals are positive reactions.<br>致敏感性: 致突变性: 肿瘤性转化: 仓鼠胚胎 5 mol/L。生殖毒性: 大鼠经口最低中毒剂量 (TDLO): 158mg/kg(多代用药), 胚胎中毒, 胎鼠死亡。致癌性: IARC 致癌性评论: 动物为阳性反应                                |
| Local effects: mutagenicity: neoplastic transformation: hamster embryo 5mol/l. Reproductive toxicity: the lowest oral poisoning dose (TDL 0) of rats: 158 mg/kg (multi-generation medication), embryo poisoning, fetal rat death. Carcinogenicity: IARC Carcinogenicity Review: Animals are positive reactions.<br>局部效应: 致突变性: 肿瘤性转化: 仓鼠胚胎 5μmol/L。生殖毒性: 大鼠经口最低中毒剂量 (TDLO): 158mg/kg(多代用药), 胚胎中毒, 胎鼠死亡。致癌性: IARC 致癌性评论: 动物为阳性反应                                |
| Chronic toxicity or long-term toxicity: mutagenicity: neoplastic transformation: hamster embryo 5mol/L .. Reproductive toxicity: the lowest oral poisoning dose (TDL 0) of rats: 158 mg/kg (multi-generation medication), embryo poisoning, fetal rat death. Carcinogenicity: IARC Carcinogenicity Review: Animals are positive reactions.<br>慢毒性或长期毒性: 致突变性: 肿瘤性转化: 仓鼠胚胎 5μmol/L。生殖毒性: 大鼠经口最低中毒剂量 (TDLO): 158mg/kg(多代用药), 胚胎中毒, 胎鼠死亡。致癌性: IARC 致癌性评论: 动物为阳性反应 |
| Special effects: mutagenicity: neoplastic transformation: hamster embryo 5mol/l. Reproductive toxicity: the lowest oral poisoning dose (TDL 0) of rats: 158 mg/kg (multi-generation medication), embryo poisoning, fetal rat death. Carcinogenicity: IARC Carcinogenicity Review: Animals are positive reactions.<br>特殊效应: 致突变性: 肿瘤性转化: 仓鼠胚胎 5μmol/L。生殖毒性: 大鼠经口最低中毒剂量 (TDLO): 158mg/kg(多代用药), 胚胎中毒, 胎鼠死亡。致癌性: IARC 致癌性评论: 动物为阳性反应                              |

**12、 Waste disposal method 废弃处置方法**

Waste disposal method: the liquid is discharged into the special system for heavy metal wastewater for treatment, the PH value is neutralized, and nickel metal is trapped at the same time. It is not allowed to flow into ponds and water sources; solids are handed over to professional recycling companies for unified recycling;

废弃处置方法:液体排入重金属废水专用系统处理,中和PH值,同时捕集镍金属.不可流入池塘,水源地方;  
(固体交专业回收公司统一回收处理;)

**13、 Ecological data 生态资料**

Possible environmental impact/environmental distribution: China (TJ36-79) maximum allowable concentration of harmful substances in the air of workplace is 1mg/m<sup>3</sup> (calculated as Ni); China (GB16297-1996) comprehensive air pollutant emission standard ① maximum allowable emission concentration: 4.3mg/m<sup>3</sup> (Table 2); 5.1mg/m<sup>3</sup>② Maximum allowable emission rate: Grade II 0.15 ~ 6.3 kg/h; 0.24 ~ 10 kg/h for the third grade and 0.18 ~ 7.4 kg/h for the second grade; Level III 0.28 ~ 11 kg/h ③ Monitoring concentration limit of unorganized emission: 0.040mg/m<sup>3</sup> 0.050mg/m<sup>3</sup> (Table 1); China (GB15618-1995) soil environmental quality standard (mg/kg) level I 40; Level 2 40 ~ 60; Nickel release in Grade III 200 EU 94/27/EC toys a) Earrings or other similar items inserted into ear holes and other puncture parts of human body during wound healing caused by puncture, and nickel release shall not exceed 0.2 μg/cm<sup>2</sup>/week; B) The release amount of nickel in products in direct and long-term contact with skin shall not exceed 0.5 μg/cm<sup>2</sup>/week;

可能环境影响:可能环境影响/环境流布:中国(TJ36-79)车间空气中有害物质的最高容许浓度 1mg/m<sup>3</sup>(按Ni计)中国(GB16297-1996)大气污染物综合排放标准①最高允许排放浓度:4.3mg/m<sup>3</sup>(表2);5.1mg/m<sup>3</sup>②最高允许排放速率:二级 0.15~6.3kg/h;三级 0.24~10kg/h 二级 0.18~7.4kg/h;三级 0.28~11kg/h③无组织排放监控浓度限值:0.040mg/m<sup>3</sup> 0.050mg/m<sup>3</sup>(表1);中国(GB15618-1995)土壤环境质量标准(mg/kg)一级40;二级40~60;三级200 欧盟94/27/EC玩具中镍释放量 a)在由穿刺引起的伤口愈合过程种插入耳孔和人体其他穿刺部位的耳钉或其他类似物品,镍释放量不得超过0.2 μg/cm<sup>2</sup> /周; b)与皮肤有直接及长期接触的制品中镍的释放量不得超过0.5 μg/cm<sup>2</sup> /周;

**14、 Transport information 运送资料**

International transportation regulations: Liquid shall be stored and transported in a sealed manner, without collision or extrusion, mixed with oxidant alkaline substances and food; solid package shall be transported completely, without collision or extrusion, mixed with oxidant alkaline substances and food.

国际运送规定:液体密封储存运输,严禁碰撞或挤压,与氧化剂碱性物及食物混运;固体包装完整运输,严禁碰撞或挤压,与氧化剂碱性物及食物混运。

UNNo.: 42004 联合国编号:42004

Domestic transportation regulations: Liquid shall be stored and transported in a sealed manner, and collision or extrusion shall be prohibited, which shall be mixed with oxidant alkaline substances and food; solid package shall be transported completely, and collision or extrusion shall be prohibited, which shall be mixed with oxidant alkaline substances and food.

国内运送规定:液体密封储存运输,严禁碰撞或挤压,与氧化剂碱性物及食物混运;固体包装完整运输,严禁碰撞或挤压,与氧化剂碱性物及食物混运。

Special transportation methods and precautions: liquid is stored and transported in a sealed manner, and collision or extrusion is forbidden, which is mixed with oxidant alkaline substances and food; solid package is completely transported, collision or extrusion is forbidden, which is mixed with oxidant alkaline substances and food.

特殊运送方法及注意事项:液体密封储存运输,严禁碰撞或挤压,与氧化剂碱性物及食物混运;固体包装完整运输,严禁碰撞或挤压,与氧化剂碱性物及食物混运。

**15、 Regulatory data 法规资料**

Applicable laws and regulations: labor safety and health law and its implementation rules, storage and disposal methods of industrial wastes, road traffic safety rules, RoHS regulations and REACH regulations

适用法规: 劳工安全卫生法及实施细则、事业废弃物储存清处理方法、道路交通安全规则、RoHS 法规、REACH 法规

**16、 other 其它**

This data sheet describes our existing knowledge of products in the state of delivery in terms of environmental protection and labor safety.

本资料表描述了我们在交付状态下在环境保护和劳动安全方面的现有知识。

However, this data sheet does not guarantee the performance of some products and is not legally binding.

然而, 本资料表并不保证某些产品的性能, 也不具有法律约束力。

HJBRIGHT®

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审核 (Examine): Mark



核准 (Approval): Aren