

安全資料表 Safety Data Sheet

| 1. 物品與廠商資料 Product and supplier data | | |
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| 物品名稱 Product name : | 積體電路矽晶圓 Wafer(Si) | |
| 物品編號 Product number : | NA | |
| 製造者、輸入者或供應者名稱、地址及電話： Manufacturer and supplier name | 新唐科技股份有限公司 Nuvoton technology Corp. 中華民國台灣新竹市研新三路 4 號 No.4.Creation Rd. III ,Hsinchu Science Park,Taiwan.R.O.C Tel/Fax : 886-3- 5770066 / 886-3-5792606 | |
| 緊急聯絡電話/傳真電話 Emergency Phone Number / Fax. : | 886-3- 5770066 / 886-3-5792606 | |
| 2. 危害辨識資料 Hazard identification data | | |
| 危害分類 Hazard Classification : | 不適用 Not applicable | |
| 標示內容 Label elements : | 不適用 Not applicable | |
| 其他危害 Other hazards : | 當它分開時，角部分有切割的危險，碎片會散開。 如果細粉末與水反應，將產生氫氣，並且根據情況，存在引燃和爆炸的危險。 此外，細粉會引起粉塵爆炸。 Physical and Chemical Hazard: When it is divided, there is danger of a cut in an angle part, and a fragment will scatter. If fine powder reacts with water, hydrogen gas will be generated, and depending on a situation, there is danger of ignition and explosion. Moreover, fine powder will cause dust explosion. | |
| 3. 成分辨識資料 Composition, information on ingredients | | |
| 成分-化學品名稱 Component-Chemical Name &Common Names | 化學文摘社登記號碼 CAS NO. | 成分百分比 Percentage (w/w%) |
| 矽 Silicon 植入砷、硼、磷；鋁、鈦、鎢為金屬層 Doped with As, B, P ; Al ,Ti ,W as metal layer | 7440-21-3 | 99.3~99.9% |
| 砷 Arsenic (As) | 7440-38-2 | <0.0002% |
| 硼 Boron (B) | 7440-42-8 | <0.1% |
| 磷 phosphorus (P) | 7723-14-0 | <0.1% |
| 鋁 Aluminum (Al) | 7429-90-5 | <0.2% |
| 鈦 Titanium (Ti) | 7440-32-6 | <0.1% |
| 鎢 Tungsten (W) | 7440-33-7 | <0.1% |
| 4. 急救措施 First aid measures | | |
| 不同曝露途徑之急救方法 Emergency rescue method to different kinds of exposure | | |
| 吸入 Inhalation : 不適用 Not applicable | | |
| 眼睛接觸 Eye contact : 不適用 Not applicable | | |
| 皮膚接觸 Skin contact : 無傷害 harmless | | |
| 不適用 Ingestion 食入 : Not applicable | | |

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| 當單晶矽片碎片進入眼睛時，請在醫生同意下進行清洗 When a single-crystal-silicon fragment should go into an eye, receive a doctor's allowance after washing your face. ° |
| 最重要症狀及危害效應 Most important symptom and hazard effect：無 None |
| 對急救人員之防護 Protection for emergency rescue members：無 None |
| 對醫師之提示 Reminders to physicians：無 None |
| 5. 滅火措施 Fire extinguishing measures |
| 適用滅火劑 Type of fire extinguisher to be used：無 None |
| 特殊滅火程序 Special fire extinguishing procedure：不可燃 non-burnable |
| 消防人員之特殊防護設備 Special protection gear of fire fighting team：不可燃 non-burnable |
| 危害燃燒後產物 Burning residue：無 None |
| 6. 洩漏處理方法 Accidental release measures |
| 個人應注意事項 Personal important reminders：無 None |
| 環境注意事項 Environment important reminders：無 None |
| 清理方法 Cleaning method：無 None |
| 7. 安全處置與儲存方法 Safety handling and storage method |
| 處置 Handling：置於晶舟盒內 In shipping cassette |
| 儲存 Storage：置於晶舟盒內 In shipping cassette |
| Handling Requirements: Since a single-crystal-silicon wafer tends to break, it warns against touching empty-handed using tweezers or a protective glove. Storage Requirements: Especially nothing |
| 8. 曝露預防措施 Exposure controls, personal protection |
| 無資料 No relevant information found. |
| 9. 物理化學性質 Physical and chemical properties |
| 物質狀態 Material status：固體 Solid |
| 顏色 Color：灰色帶金屬光澤 Gray with metallic luster |
| 氣味 Odor：無 None |
| 沸點 Boiling Point：2360°C |
| 熔點 Melting Point：1410°C |
| 分解溫度 Decomposition temperature：無資料 No relevant information found |
| 閃火點 Flash point：無資料 No relevant information found |
| 爆炸界限 Explosion limit (%)：無資料 No relevant information found |
| 自燃溫度 Self-ignition temperature：無資料 No relevant information found |
| 比重 Specific Gravity：2.33 g/cm ³ (at 25°C) |
| 水中溶解度 Solubility：無 None |

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| 蒸氣壓 Vapor pressure (21.1°C) : 無 None |
| 10. 安定性及反應性 Stability and reactivity |
| <p>安定性與反應性 Stability / Reactivity : 安定 Stability</p> <p>危害分解物 Hazardous decomposition materials : 不適用 Not applicable</p> <p>應避免之狀況 Conditions that must be avoided : 無 None</p> <p>如果細粉末與水反應，會產生氫氣，根據情況，有引燃和爆炸的危險 If fine powder reacts with water, hydrogen gas will be generated, and depending on a situation, there is danger of ignition and explosion.</p> <p>應避免之物質 Materials to be avoided : 無 None</p> |
| 11 毒性資料.Toxicological information |
| <p>急毒性 Acute toxic : 非毒性物質 Non-toxic substance</p> <p>慢毒性或長期毒性 Chronic toxic or long term toxic :</p> <p> 慢毒性 Chronic Toxicity : 無資料 No relevant information found.</p> <p> 致癌性 Carcinogenicity : 無資料 No relevant information found.</p> <p> 致突變性 Mutagenicity : 無資料 No relevant information found.</p> <p> 致生殖毒性 Genital Toxicity : 無資料 No relevant information found.</p> <p> 致畸性 Teratogenicity : 無資料 No relevant information found.</p> <p>特殊效應 Special effects : 無資料 No relevant information found</p> |
| 12.生態資料 Ecological information |
| <p>可能之環境影響/環境流佈 Possible effects in the environment / Environmental impact : 不影響生態環境 No effects</p> <p>水中毒性 Toxic in water : 無 None</p> <p>移動性 Mobility : 無 None</p> <p>生物累積性 Bio-cumulative : e 無 Non</p> |
| 13. 廢棄處置方法 Disposal considerations |
| <p>依一般事業廢棄物處置方式處理 According to normal waste handling procedure</p> <p>因為它往往會破碎，要小心處理。 此外，如果細粉末與水反應，將產生氫氣，並且根據情況，存在引燃和爆炸的危險。 此外，摻雜砷的晶片適用於有毒和有害物質控制法的管制</p> <p>Since it tends to break, be careful of handling. Moreover, if fine powder reacts with water, hydrogen gas will be generated, and depending on a situation, there is danger of ignition and explosion. In addition, wafer which doped arsenic applies to regulation of the Poisonous and Deleterious Substance Control Law.</p> |
| 14. 運送資料 Transport information |
| <p>Since it tends to break, be careful of handling.</p> |
| 15. 法規資料 Regulatory information |
| <p>無相關資料 No relevant information found.</p> |
| 16.其他資料 Other information |

參考文獻 References Cited :

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2. *Metal Powder Flammability demands careful handling.
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Remark: