



CLAYMAN

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SAFETY DATA SHEET

| | |
|------|--------------------|
| 5582 | ZIRCONIUM SILICATE |
|------|--------------------|

| 1. Identification of substance/preparation and of the company undertaking | |
|---|--------------------|
| Trade Name: | Zirconium Silicate |
| Chemical name | Zirconium silicate |
| Synonyms | Zircon |

| 2. Composition /information on ingredients | | | |
|--|------------|---------|------------------|
| Component | CAS | EINECS | % of composition |
| Zircon | 14940-68-2 | 2390196 | >99 |

| 3. Hazards Identification | |
|--|--|
| Inhalation | Excessive exposure may cause symptoms of chronic lung disease |
| Ingestion | The product is of low solubility in body fluids and it is likely to be of low toxicity |
| Eyes | May cause physical irritation and inflammation |
| Skin | The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation |
| Please note zircon is a minor radioactive hazard. See sections 11 and 15 | |

| 4. First Aid Measures | |
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| Inhalation | Remove patient to fresh air, loosen tight clothing and seek medical attention |
| Ingestion | Do not induce vomiting, seek medical advice |
| Eyes | Wash immediately with copious amounts of water |
| Skin | Wash affected areas with water |

| 5. Fire Fighting Hazards | |
|-------------------------------|--|
| Extinguishing Media | Suitable for surrounding fire conditions |
| Special Exposure hazard | None |
| Personal protective equipment | None other than required for surrounding fire conditions |



| 6. Accidental Release Measure | |
|--------------------------------------|---|
| Leaks & Spills | Use suitable vacuum equipment where reasonably practicable, otherwise damp down and scoop into a receptacle |
| Personal protective equipment | Respiratory protective equipment |

| 7. Handling & Storage | |
|----------------------------------|---|
| Handling | Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material |
| Storage | Store in dry area |

| 8. Exposure Control/Personal Protection | |
|--|---|
| Engineering controls | Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended. |
| Personal protective equipment | Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards prEN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact. |

| 9. Physical & Chemical Properties | |
|--|-------------------------|
| Appearance & Odour | White powder, odourless |
| Flash point (°C) | Not applicable |
| Flammability | Not applicable |
| Explosive properties | Non-explosive |
| Oxidising properties | None |
| Specific gravity | 4.6 |
| pH value | 7 (insoluble in water) |
| Melting point (°C) | 1700° C |

| 10. Stability & Reactivity | |
|---------------------------------------|------------------------|
| Chemical stability | The material is stable |
| Conditions/materials to avoid | None known |
| Hazardous decomposition products | None known |
| Hazardous polymerization products | None |



| 11. Toxicological Information | | | |
|--|--|------------|------------|
| Acute toxicology | LD50 | Oral | >2000mg/kg |
| | LD50 | Dermal | Not Known |
| | LD50 | Inhalation | Not Known |
| Health effects | Prolonged or repeated exposure above Occupational Exposure Standards may cause fibrosis of the lungs | | |
| Zircon contains small amounts of thorium and uranium and is classified as a radioactive substance by the ionising radiations regulations 1985. | | | |
| Grade of zircon supplied by Clayman has a particularly small percentage of thorium (Th) and Uranium (U). | | | |
| Specific activity is typically 0.7 Bq/g for Th ₂₃₂ , 3 Bq/g for U ₂₃₈ | | | |
| Measured dose rates are typically as follows: | At the surface of a bag of sand | | 3.0 uSv/hr |
| | At the surface of a heap of sand | | 4.5 uSv/hr |
| | At 0.5m distance from that heap | | 2.0 uSv/hr |

| 12. Ecological Information | |
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| Ecotoxicity | Not known |
| Persistence | The product is chemically stable and will persist in the environment |

| 13. Disposal Considerations | |
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| Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method. | |

| 14. Transport Information | | |
|---------------------------|----------------|----------------|
| UN/SI No. | Not classified | |
| UN Class | Not classified | |
| Packing group | Not classified | |
| Road | UK | Not classified |
| | ADR | Not classified |
| Sea | IMO | Not classified |
| Air | IMCO | Not classified |



| 15. Regulatory Information | | |
|---|----------------------------|--|
| EC Supply Labelling | Non hazardous | |
| R-Phrases | None | |
| S-Phrases | Optional for dusty powders | |
| | S20/21 | When using do not eat, drink or smoke. |
| | S38 | In case of insufficient ventilation wear suitable respiratory equipment. |
| UK Occupational exposures limits (refer to HSE Guidance note EH40) | Mg/m ³ 8 hr TWA | % in product |
| Dusts - total inhalable | 10 | - |
| Dusts - total respirable | 5 | - |
| Dusts due to Th and U | 6 | 1.3 |
| In accordance with HSE Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk. | | |

| 16. Other Information | |
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| COSHH ACOP: | HSC Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994. |
| CHIP 96: | The Chemicals (Hazard Information and Packaging for Supply) Regulations 1996. |
| CHIP SDS ACOP: | HSC Approved Code of Practice for Safety data sheets in accordance with regulation 6 of the CHIP regulations. |
| HSE EH40: | HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations. |