

MATERIAL SAFETY DATA SHEET

Composite Ti for Stage Effect HC8200

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SECTION 1: Identification of the substance and of the company

| | | |
|----------------------------|--------------------------------------|--|
| Product name | Composite Ti for Stage Effect HC8200 | |
| Manufacturer | Name | Liuyang Xiaowen Electronic Technologies Co., Ltd. |
| | Address | 66#, FangguBuxing Street, Liuyang City, Hunan Province, China. |
| | Tel | +86-731-83833068 |
| | Fax | +86-731-83833069 |
| | ZIP No. | 410300 |
| | E-mail | sales@showven.com |
| Emergency telephone number | +86-731-83833068 | |

Section 2: Composition/information on ingredients

Composition:

| Chemical name | In % by weight | CAS No. | Dimension | Molecular Formula |
|----------------|----------------|-----------|-----------|-------------------|
| Titanium (Ti) | 80 | 7440-67-7 | 180~300um | Ti |
| Zirconium (Zr) | 20 | 7440-32-6 | | Zr |

Abbreviation: CAS No. is chemical Abstract Service Registry Number.

Section 3: Hazards identification

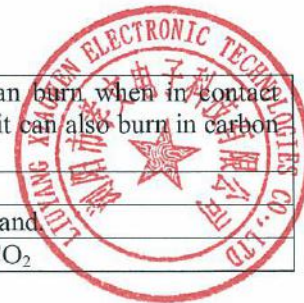
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|-----------------------|--|
| Fatalness grade | In accordance with the Catalog of Hazardous Chemicals (2015) of China, the material is not a dangerous good. |
| Invasion Route | Inhalation. |
| Health hazards | There is no report of composite Ti for stage effect in industry. |
| Environmental hazards | No known significant effects. |
| Burn & burst danger | The material is not easy to burn. |

Section 4: First aid measures

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| Skin contact | Wash skin with plenty of soap and water. Remove contaminated clothing. |
| Eye contact | Flush eyes with water, lifting upper and lower eyelids, for 20 minutes. Get medical attention. |
| Inhalation | Remove victim to fresh air give oxygen if Breathing is difficult. |
| Ingestion | Give 1-2 glasses of milk or water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person. |

Section 5: Firefighting measures

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| Hazard characteristics | Composite Ti for stage effect can burn when in contact with open fire and high heat and it can also burn in carbon dioxide and nitrogen gas. |
| Harmful combustion product | Titanium |
| Suitable extinguishing media | Use dry extinguishing agents or sand. |
| Unsuitable extinguishing media | Water, foam air extinguisher or CO ₂ |


Section 6: Accidental release measures

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| Release Measures | Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust. |
|------------------|--|

Section 7: Handling and storage

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| Precaution for safe handling | Operator must undergo special training; strictly comply with the operating procedures. Recommend the operator to wear self-absorption filter dust masks, chemical safety glasses and chemical gloves. Workplace must be away from fire and heat source. Provide sufficient ventilation to maintain concentration at or below TLV. Avoid producing dust. Avoid contact with acids. Store in a cool dry place in a tightly sealed container. |
| Conditions for safe storage | Store in a cool, ventilated warehouse. Store away from fire and heat source. Should be stored separately from acids and avoid mixed storage. Ventilation systems must Provide sufficient ventilation to maintain concentration at or below TLV. The storage area should be equipped with appropriate material to contain leakage. |

Section 8: Exposure controls/personal protection

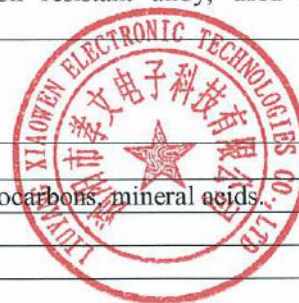
| | |
|--------------------------|---|
| MAC (mg/m ₃) | OSHA PEL: 5 mg/m ³ AS ZIRCONIUM ACGIH TLV: 5 mg/m ³ AS ZIRCONIUM |
| Monitoring method | Two xylenol orange colorimetry |
| Engineering control | Generally don't need special protection, but need to prevent dust hazards. |
| Respiratory protection | NIOSH approved dust/mist respirator. |
| Eye protection | Wear chemical safety glasses. |
| Body protection | Wear general protective clothing. |
| Hand protection | Wear chemical gloves. |

Section 9: Physical and chemical properties

| | |
|--|--------------------------------------|
| Appearance and properties: Grey white grain | PH : N/A |
| Melting point(°C):1668 °C (Titanium) | Boiling point(°C):3277 °C (Titanium) |
| Relative density (water =1): 5.7 | |
| Saturated vapor pressure (kPa):N/A | |
| Critical temperature (°C): N/A | Critical pressure (mPa): N/A |
| Ignition temperature (°C):N/A | Flash point (°C):N/A |
| Upper explosion limit (V/V): N/A | Lower explosion limit (V/V): N/A |
| Solubility: insoluble in water | |
| Uses: in the manufacture of nuclear industry and corrosion resistant alloy, used as metallurgical oxygen, and as a chemical reagent. | |

Section 10: Stability and reactivity

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| Stability | Stable |
| Incompatibility: | Air, oxidizing agents, halogens, halocarbons, mineral acids. |
| Conditions to avoid | Open flame |
| Polymerization hazard | Will not occur |
| Decomposition product | None |



Section 11: Toxicological information

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|--------------------------------|----------------------------------|
| Acute toxicity | LD50: no data LC50: no data |
| Acute poisoning | N/A |
| Chronic poisoning | N/A |
| Irritation | Mild irritation |
| Sub-acute and chronic toxicity | N/A |
| Mutagenicity | N/A |
| Teratogenicity | N/A |
| Carcinogenicity | N/A |

Section 12: Ecological information

| | |
|----------------------------|-------------------|
| Eco toxicity | No data available |
| Biodegradability | N/A |
| Non biological degradation | N/A |
| Biological accumulation | N/A |

Section 13: Disposal considerations

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|-----------------------|--|
| Property of waste | N/A |
| Waste disposal method | Dispose of in accordance with local, state and federal regulations |

Section 14: Transport information

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|---------------------|--|
| Dangerous goods No. | Not a hazardous material |
| UN No. | N/A |
| Packing mark | N/A |
| Packaging category | N/A |
| Packing | Galvanized drum with a large diameter seal cover and barrel lined with plastic film. |
| Transportation note | Keep away from the open flame and heat source. Railway transportation prohibits humping. |

SECTION 15: Regulatory information

Dangerous chemicals safety management regulations (344 decree of the State Council, March 15, 2002), workplace safety use chemical regulations (423 decree of the labor department, 1996) and other laws and regulations provide the safe use, production, storage, transportation, loading and unloading of hazardous chemicals. Classification and Marking of Dangerous Chemicals (13690-92 GB) provide composite Ti for stage effect as class 5.14 (In case of fire and high temperature material can burn).

SECTION 16: Other information

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|--------------------------|--|
| Reference | |
| Filling time | Feb 15, 2015 |
| Filling Department | Technology Department |
| Data audit department | Chief Engineer Office |
| Modification Description | Flammability of Composite Ti for stage effect relates to size. The smaller the size, the easier to burn. The size of 180-300 um composite Ti for stage effect is not easy to burn. |

