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| 舞美复合钛物质安全数据表(英文版) Material Safety Data Sheet of Composite Ti for Stage effect | | | |
| Reference Document(s) | | | |
| Document No. | Description | | |
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| Document dispatch department : (according to the following explanation) 1.Tooling、 Fixture、 all-purpose & Reagent doc must be filled in. 2. Confidential & Top secret doc. must be filled in, but only for needing to release. | | 国际市场部、国内市场部、研发部 | |



MATERIAL SAFETY DATA SHEET

Composite Ti for Stage Effect

CONTENT

SECTION 1: Identification of the substance and of the company

SECTION 2: Composition/information on ingredients

SECTION 3: Hazards identification

SECTION 4: First aid measures

SECTION 5: Firefighting measures

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity

SECTION 11: Toxicological information

SECTION 12: Ecological information

SECTION 13: Disposal considerations

SECTION 14: Transport information

SECTION 15: Regulatory information

SECTION 16: Other information

SECTION 1: Identification of the substance and of the company

| | | |
|----------------------------|-------------------------------|--|
| Product name | Composite Ti for Stage Effect | |
| Manufacturer | Name | Liuyang Xiaowen Electronic Technologies Co., Ltd. |
| | Address | ZIP Code : 410300 |
| | Tel | +86-731-83833068 |
| | Fax | +86-731-83833069 |
| | ZIP No. | 410300 |
| | E-mail | info@showven.com |
| Emergency telephone number | +86-731-83833068 | |

Section 2: Composition/information on ingredients

Pure

Admixture

Composition:

| Chemical name | In % by weight | CAS No. | Dimension | Molecular Formula |
|---------------|----------------|---------|-----------|-------------------|
|---------------|----------------|---------|-----------|-------------------|

Tel : +86-731-83833068, Fax : +86-731-83833069, Web: www.showven.com, Email : info@showven.com ZIP Code : 410300
Address: Building B1, Changsha E-Center, No.18 Xiangtai Road, Liuyang Economic Development Zone, Hunan, China.

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|------------------|----|------------|-----------|------------------|
| Zirconium (Zr) | 20 | 7440-67-7 | 200~250um | Zr |
| Titanium (Ti) | 75 | 7440-32-6 | | Ti |
| titanium dioxide | ≤5 | 13463-67-7 | - | TiO ₂ |

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

Section 3: Hazards identification

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| Fatalness grade | The Object is not divided into dangerous article. |
| Invasion Route | Inhalation. |
| Health hazards | There is no report of the material in industry. |
| Environmental hazards | No known significant effects or critical hazards. |
| Burn & burst danger | The object isn't easy to burn. |

Section 4: First aid measures

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| Skin contact | Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician. |
| Eye contact | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. |
| Ingestion | Drink enough warm water to emetic. Get medical attention. |

Section 5: Fire fighting measures

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| Hazard characteristics | The material could be burned when contact with open fire and high heat and it could also be burned in carbon dioxide and nitrogen gas. |
| Harmful combustion product | Zirconium oxides, Titanium oxides |
| Suitable extinguishing media | Sand. |
| Unsuitable extinguishing media | Dry powder fire extinguisher, water, carbon dioxide, and foam air extinguisher |

Section 6: Accidental release measures

Isolation of contaminated areas, restrictions on access. Cut off the fire source. Recommended emergency personnel wear self-positive pressure respirator, wear ordinary work clothes. A small amount of leakage: use non sparking tools to collect, dry and clean the material and storage in container with cap for recovery. A large number of leaks: covered with plastic sheeting or canvas. Use no spark tools to collect for recovery.

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 and staff no smoking. Ventilation systems and equipment must be explosion proof type. Avoid producing dust. Avoid contact with acids. Carry lightly and maintain complete packaging to prevent leakage. Firefighting equipment and leakage emergency treatment equipment |
|------------------------------|---|

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| | need to be equipped with enough variety and quantity. |
| Conditions for safe storage | For safety, store in a cool, ventilated warehouse. Warehouse must be away from fire and heat source. Packing seal. Should be stored separately with acids and avoid mixed storage. Ventilation systems and equipment must be explosion proof type. Mechanical equipment and tools must be no sparks. The storage area should be equipped with appropriate material to contain leakage. |

Section 8: Exposure controls/personal protection

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|--------------------------|--|
| MAC (mg/m ₃) | No data |
| Monitoring method | Two xylenol orange colorimetry |
| Engineering control | Generally don't need special protection, but need to prevent smoke and dust hazards. |
| Respiratory protection | When dust concentration exceeds the standard, it is recommended to wear self-absorption filter dust masks. |
| Eye protection | When dust concentration exceeds the standard, wear chemical safety glasses. |
| Body protection | Wear general protective clothing. |
| Hand protection | Wear chemical gloves. |
| Other protection | |

Section 9: Physical and chemical properties

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|---|--------------------------------------|
| Appearance and properties: Grey white grain | PH : N/A |
| Melting point(°C): N/A | Boiling point(°C): N/A |
| Relative density (water =1): 5.7 | Relative vapor density (air =1): N/A |
| Saturated vapor pressure (kPa):no data | Combustion heat (kJ/mol): 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 |
| Octanol / water partition coefficient of value: N/A | |
| Solubility: insoluble in water, soluble in hot concentrated acid, hydrofluoric acid, sulfuric acid and aqua regia. | |
| Uses: used in corrosion resistant alloy, flash, fireworks, etc., also used as metallurgical oxygen, chemical reagent and so on. | |
| Other physical and chemical properties: N/A | |

Section 10: Stability and reactivity

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|-----------------------|---|
| Stability | stable |
| Forbidden complex | Acid, oxygen and lead |
| Conditions to avoid | No Heat, no air, no moisture and no compression |
| Polymerization hazard | Can't happen |
| Decomposition product | ZrO ₂ , TiO ₂ |

Section 11: Toxicological information

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|----------------|---------------|
| Acute toxicity | Not available |
|----------------|---------------|

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|--------------------------------|---------------|
| Acute poisoning | Not available |
| Chronic poisoning | Not available |
| Irritation | Not available |
| Sub-acute and chronic toxicity | Not available |
| Mutagenicity | Not available |
| Teratogenicity | Not available |
| Carcinogenicity | Not available |

Section 12: Ecological information

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

Section 13: Disposal considerations

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|-----------------------|---------------|
| Property of waste | No meaning |
| Waste disposal method | Recycling use |

Section 14: Transport information

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|---------------------|--|
| Dangerous goods No. | - |
| UN No. | - |
| Packing mark | No Fire, Prevent Sunlight and Raining |
| Packaging category | Ordinary packing |
| Packing method | Vacuum packaging through aluminum foil bag |
| Transportation note | Firefighting equipment and leakage emergency treatment equipment should be equipped enough during transportation. Vehicle exhaust pipe of this car must have fire resistance device. To ensure that the container does not leak, fall and damage during transportation. Prevent insolation, rain and high temperature during transportation. Should stay away from the fire, heat source when stop over. Railway transportation must prohibit 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 hazard chemicals.

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 the material relates to size. The smaller the size, the easier to burn. The size of 200-250um of the industrial grade is not quite easy to burn. |
| Other information | |