Safety Data Sheet

Spark Powder for Stage Effect

Version 1.0

Issue date: 01-03-2019

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Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: Spark Powder for Stage Effect

Additional identification: Not available See section 3

Identification of the product: See section 3

Index Number:

REACH registration No.: See section 3

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.2.1 Identified uses:

A kind of consumables of the deductive equipment

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): -

Supplier(Manufacturer): Changsha Spark Technology Electronics Co.,Ltd

Address: Changsha,Hunan, China.

sparkulartech@gmail.com

Contact person(E-mail): +86-13875851139

Telephone:

Fax:

1.4 Emergency telephone Number:

+86-13875851139

Available outside office hours? YES [ ] NO [X]

Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification:

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard codes
N/A	N/A

2.2 label elements:

Hazard Pictograms: No hazard pictogram is used.

Signal Word(S): No signal word is used.

Hazard Statement: Not applicable.

Precautionary statement: Not applicable.

2.3 Other hazards:

Not available.

Section 3 Composition/information on ingredients

Substance/Mixture: Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification
Titanium	N/A	7440-32-6	231-142-3	75%	Not Classified
Zirconium	N/A	7440-67-7	231-176-9	20%	H250 H260
Titanium dioxide	N/A	13463-67-7	236-675-5	<5%	Not Classified

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of 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.

4.1.2 In case of skin contact:

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

4.1.3 In case of eyes contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention.

4.1.4 In case of ingestion:

Drink enough warm water to emetic. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed:

The product is not classified as harmful to human health effect.

4.3 Indication of any immediate medical attention and special treatment needed:

Symptomatic treatment.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Sand.

Unsuitable extinguishing media: Dry powder fire extinguisher, water, carbon dioxide, and foam air extinguisher

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Isolation of contaminated areas, restrictions on access. Cut off the fire source. Recommended emergency personnel wear self-positive pressure respirator, wear ordinary work clothes.

6.1.2 For emergency responders: Avoid skin and eye contact. Refer to section 8 of SDS for personal protection details.

6.2 Environmental Precautions: Avoid disposing into drainage/sewer system or directly into the aquatic environment.

6.3 Methods and material for Containment and Cleaning up: 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.

6.4 Reference to other sections： See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Section 7 Handling and storage

7.1.1 Protective measures: 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. Fire-fighting equipment and leakage emergency treatment equipment need to be equipped with enough variety and quantity.

7.1.2 Advice on general occupational hygiene: Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities: 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. Not available.

7.3 Specific end use(s):

7.1 Precautions for safe handling:

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

				Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period		
Country	Substance	EINECS No.	CAS No.	ppm	mg/ m3	ppm	mg/ m3	Notes
Ireland	Zirconium	231-176-9	7440-67-7	■	5	■	10	■
Ireland	Titanium dioxide total inhalable dust respirable dust	236-675-5	13463-67-7	 ■ -	 10 4	 ■ -	 ■ -	 ■ -

8.1.2 **Additional exposure limits under the conditions of use:** Not available,

8.1.3 **DNEL/DMEL and PNEC-Values:** Not available.

8.2 Exposure controls:

8.2.1 **Appropriate engineering controls:** Generally don't need special protection, but need to prevent smoke and dust hazards.

8.2.2 **Individual protection measures，such as personal protective equipment:**

Eye/face protection: When dust concentration exceeds the standard, wear chemical safety glasses.

Hand protection:	Wear chemical gloves.
Body protection:	Wear general protective clothing.
Respiratory protection:	When dust concentration exceeds the standard, it is recommended to wear self-absorption filter dust masks.
Thermal hazards:	Wear suitable protective clothing to prevent heat.
8.2.3 Environmental exposure controls:	Avoid discharge into the environment. Dispose of rinse water in accordance with local and national regulations

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Solid
Colour:	Ash black
Odour:	Odorless
Odour threshold:	Not available
pH：	Not available
Melting point/range (°C):	1 668 °C (Titanium CAS# 7440-32-6)
Boiling point/range (°C):	3 287 °C (Titanium CAS# 7440-32-6)
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Relative Density:	5.7
Bulk density (kg/m^3):	Not available
Water solubility (g/l):	insoluble in water
n-Octa no l/Water (log Po/w):	Not available
Auto-ignition temperature:	> 406 °C (Titanium CAS# 7440-32-6)
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available

9.2. Other information:

Fat solubility (sol vent- oil to be specified) etc:	Soluble in hot concentrated acid, hydrofluoric acid, sulfuric acid and aqua regia.
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.

10.4 Conditions to avoid: Incompatible materials. Avoid heat, air, moisture and compression.

10.5 Incompatible materials: Acid, oxygen and lead

10.6 Hazardous decomposition products: ZrO_2, TiO_2

Section 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:

ATEmix(oral): Not available

ATEmix(inhalation): Not available

ATEmix(Dermal): Not available

Titanium (CAS# 7440-32-6)

LD50(Oral, Rat): >5 000 mg/kg bw

LD50(Dermal, Rabbit): Not available

LC50(Inhalation, Rat): Not available

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

Section 12 Ecological information

12.1 Toxicity:

Titanium (CAS# 7440-32-6)

Acute (short-term) toxicity:

LC50(96h, Fish): > 10 000 mg/L

LC50(48h, Crustacea): > 10 000 mg/L

EC50(72h, Algae/aquatic plants): 61 mg/L

Chronic (long-term) toxicity:

NOEC(Fish): Not available

NOEC(Crustacea): Not available

EC50(Algae/aquatic plants): Not available

12.2 Persistence and degradability: Not available.

12.3 Bioaccumulative potential: Not available.

12.4 Mobility in soil: Not available.

12.5 Results of PBT and vPvB assessment: Not available.

12.6 Other adverse effects: Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods: The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Airtransport (ICAO/IATA)
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard Class(es)	Not regulated	Not regulated	Not regulated	Not regulated
Packing group	Not regulated	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated	Not regulated

Section 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not applicable

15.2 Chemical safety assessment

YES [ ] NO [X]

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2015/830

16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID:

Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Training instructions:

Not applicable.

16.5 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.6 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.