

DJPOWER

NO.8 FUBANG RD, JINGHU INDUSTRIAL AREA, XINHUA TOWN, HUADU DISTRICT, GUANGZHOU, CHINA

SGS Job No. : CP18-005388-SZ
Sample Name : SPARK MACHINE CONSUMABLES
End Uses : Stage effect
Composition/Ingredient of sample (as per client submission) : See *section 3 Composition/information on ingredients* on the SDS report
Job Receiving Date : 30 Jan 2018
SDS Preparation Period : 30 Jan 2018 - 09 Feb 2018

Service Requested : Safety Data Sheet (SDS) for the sample with submitted composition.

Summary : As per request, the contents and formats of the SDS are prepared in accordance with European Commission Regulation (EC) No 1907/2006, Regulation (EC) No 1272/2008 and Regulation (EU) No 2015/830, and is provided per attached.

Remark:

The SDS is prepared based on the information provided by client.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch



Zm guan
Approved Signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Testing Center Chemical Laboratory.

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Safety Data Sheet

Regulation (EC) No. 1907/2006 and 1272/2008

Printing date 26.03.2018

Version number 1

Revision: 09.02.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** SPARK MACHINE CONSUMABLES
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture:** Stage effect
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:** DJPOWER
- **Full address:**
NO.8 FUBANG RD, JINGHU INDUSTRIAL AREA, XINHUA TOWN, HUADU DISTRICT, GUANGZHOU, CHINA
- **Phone number:**
+86-20-28606802
Fax: +86-20-28606699
- **Email:** info@djpower.cn
- **Only Representative / other EU contact point:** Not available
- **Further information obtainable from:** DJPOWER
- **1.4 Emergency telephone number:**
UNITED KINGDOM
National Poisons Information Service
Tel: +44 (0) 344 892 0111 (for healthcare professional)
+44 (0) 845 46 47 (in England or Wales)
+44 (0) 8454 24 24 24 (in Scotland)
18312675315 Uky
- **1.5 Reference Number:** CP18-005388-SZ, CANEC1802306201

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.
- **Information concerning particular hazards for human and environment:**
The product has not to be labelled due to the calculation procedure of Regulation (EC) No. 1272/2008.
- **Classification system:**
The classification is according to the latest edition of EU Regulation (EC) No. 1272/2008, and extended by company and literature data.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards:**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:**
Mixture of the substances listed below with nonhazardous additions.
For the wording of the listed hazard statements refer to section 16.

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| · Composition: | | |
|---|--|------------|
| CAS: 7440-67-7 EINECS: 231-176-9 Index number: 040-001-00-3 | zirconium powder (pyrophoric) ⚠ Pyr. Sol. 1, H250; Water-react. 1, H260 | 87.0-97.0% |
| CAS: 7439-89-6 EINECS: 231-096-4 | iron ⚠ Flam. Sol. 2, H228; Self-heat. 1, H251 | 2.0-8.0% |
| CAS: 7440-32-6 EINECS: 231-142-3 | titanium ⚠ Pyr. Sol. 1, H250; Self-heat. 2, H252 | 1.0-5.0% |
| CAS: 7439-95-4 EINECS: 231-104-6 Index number: 012-002-00-9 | magnesium, powder or turnings ⚠ Flam. Sol. 1, H228; Self-heat. 1, H251; Water-react. 2, H261 | 1.0-5.0% |
| CAS: 7440-58-6 EINECS: 231-166-4 | hafnium ⚠ Pyr. Sol. 1, H250 | 0.1-0.6% |
| CAS: 13463-67-7 EINECS: 236-675-5 | titanium dioxide substance with a Community workplace exposure limit | ≤0.02% |
| CAS: 10377-60-3 EINECS: 233-826-7 | Magnesium nitrate ⚠ Ox. Sol. 3, H272; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 | ≤0.02% |
| CAS: 7786-30-3 EINECS: 232-094-6 | magnesium chloride | ≤0.02% |
| CAS: 1332-37-2 EINECS: 215-570-8 | Iron oxide | ≤0.02% |
| CAS: 1309-33-7 EINECS: 215-166-1 | Diiron trioxide hydrate | ≤0.01% |
| CAS: 7705-08-0 EINECS: 231-729-4 | iron trichloride ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317 | ≤0.01% |

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General description:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed:**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
Sand, extinguishing powder
- **For safety reasons unsuitable extinguishing agents:** Water, CO₂
- **5.2 Special hazards arising from the substance or mixture:** No further relevant information available.

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- 5.3 Advice for firefighters
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures: Not required.
- 6.2 Environmental precautions: No special measures required.
- 6.3 Methods and material for containment and cleaning up:
Do not flush with water or aqueous cleansing agents
- 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 disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling:
No special measures required.
For the general occupational hygienic measures refer to Section 8.
- **Information about fire - and explosion protection:** No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:**

7440-67-7 zirconium powder (pyrophoric) (97.0%)

| | |
|---------------|--|
| AGW (Germany) | Long-term value: 1E mg/m ³ I(I);10, DFG, Sah |
|---------------|--|

7440-58-6 hafnium (0.6%)

| | |
|---------------|--|
| MAK (Germany) | vgl.Abschn.IIb |
| VME (France) | Long-term value: 0.5 mg/m ³ |

13463-67-7 titanium dioxide (0.02%)

| | |
|---------------------|--|
| WEL (Great Britain) | Long-term value: 10* 4** mg/m ³ *total inhalable **respirable |
| AGW (Germany) | Long-term value: 1.25* 10** mg/m ³ 2(II);*alveolengängig**einatembar; AGS, DFG |
| VME (France) | Long-term value: 10 mg/m ³ |

7705-08-0 iron trichloride (0.01%)

| | |
|---------------------|--|
| WEL (Great Britain) | Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³ as Fe |
|---------------------|--|

- **Regulatory information**

AGW (Germany): TRGS 900

MAK (Germany): MAK- und BAT-Liste

VME (France): ED 984, 10.2016

WEL (Great Britain): EH40/2011

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- **DNELs:** Not available
- **PNECs:** Not available
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.
- **Appropriate engineering controls:** See Section 7 for information about design of technical facilities.
- **Personal protective equipment**
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material:**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Environmental exposure controls:**
Control measures must be made in accordance with Community environmental protection legislation.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· Appearance

- | | |
|-------------------------|---------------|
| Form: | Powder |
| Colour: | Gray |
| Odour: | Odourless |
| Odour threshold: | Not available |

- | | |
|------------------|---------------|
| pH-value: | Not available |
|------------------|---------------|

· Change in condition

- | | |
|---|---------------|
| Melting point/Freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |

- | | |
|---------------------|---------------|
| Flash point: | Not available |
|---------------------|---------------|

- | | |
|-----------------------------------|---------------|
| Flammability (solid, gas): | Not available |
|-----------------------------------|---------------|

- | | |
|-----------------------------------|---------------|
| Auto-Ignition temperature: | Not available |
|-----------------------------------|---------------|

- | | |
|-----------------------------------|---------------|
| Decomposition temperature: | Not available |
|-----------------------------------|---------------|

- | | |
|-----------------------|------------------------------|
| Self-igniting: | Product is not selfigniting. |
|-----------------------|------------------------------|

- | | |
|------------------------------|---|
| Explosive properties: | Product does not present an explosion hazard. |
|------------------------------|---|

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| | |
|--|--|
| · Explosion limits | |
| Lower: | Not available |
| Upper: | Not available |
| · Oxidising properties: | Not available |
| · Vapour pressure: | Not available |
| · Density: | Not available |
| · Relative density: | Not available |
| · Vapour density: | Not available |
| · Evaporation rate: | Not available |
| · Solubility in / Miscibility with water: | Not available |
| · Partition coefficient: n-octanol/water: | Not available |
| · Viscosity | |
| Dynamic: | Not available |
| Kinematic: | Not available |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity:** Data not available
- **10.2 Chemical stability:** Data not available
- **10.3 Possibility of hazardous reactions:** Contact with water releases flammable gases.
- **10.4 Conditions to avoid:** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

7439-89-6 iron

| | | |
|------|------|--------------------|
| Oral | LD50 | 30,000 mg/kg (rat) |
|------|------|--------------------|

13463-67-7 titanium dioxide

| | | |
|------------|----------|------------------------|
| Oral | LD50 | >20,000 mg/kg (rat) |
| Dermal | LD50 | >10,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | >6.82 mg/l (rat) |

10377-60-3 Magnesium nitrate

| | | |
|------|------|-------------------|
| Oral | LD50 | 5,440 mg/kg (rat) |
|------|------|-------------------|

7786-30-3 magnesium chloride

| | | |
|------|------|---------------------|
| Oral | LD50 | 4,700 mg/kg (mouse) |
| | | 2,800 mg/kg (rat) |

7705-08-0 iron trichloride

| | | |
|------|------|-------------------|
| Oral | LD50 | 1,872 mg/kg (rat) |
|------|------|-------------------|

- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

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- **Respiratory or skin sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability:** No further relevant information available.
- **12.3 Bioaccumulative potential:** No further relevant information available.
- **12.4 Mobility in soil:** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.
- **12.7 Additional ecological information:**
- **General notes:** Generally not hazardous for water

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|-----------------|
| · 14.1 UN-Number | |
| · ADR/RID/ADN, IMDG, IATA | Not applicable |
| · 14.2 UN proper shipping name | |
| · ADR/RID/ADN, IMDG, IATA | Not applicable |
| · 14.3 Transport hazard class(es) | |
| · ADR/RID/ADN, IMDG, IATA | |
| · Class | Not applicable |
| · Label | - |
| · 14.4 Packing group | |
| · ADR/RID/ADN, IMDG, IATA | Not applicable |
| · 14.5 Environmental hazards | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user: | Not applicable. |
| · Danger code (Kemler): | - |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Not applicable. |

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- | | |
|---|--|
| · 14.8 Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

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

- **MAK(German Maximum Workplace Concentration)**

13463-67-7 titanium dioxide

3A

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** Not applicable
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** Not applicable
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** Not applicable
- **National regulations:**

- **Waterhazard class:** Generally not hazardous for water.

- **Other regulations, limitations and prohibitive regulations**

- **SVHC Candidate List of REACH Regulation Annex XIV Authorisation (15/1/2018)**

None of the ingredients is listed

- **REACH Regulation Annex XVII Restriction (10/1/2018)**

See Section 16 for information about restriction of use.

None of the ingredients is listed

- **REACH Regulation Annex XIV Authorisation List (13/6/2017)**

None of the ingredients is listed

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

- **Relevant hazard statements**

H228 Flammable solid.

H250 Catches fire spontaneously if exposed to air.

H251 Self-heating; may catch fire.

H252 Self-heating in large quantities; may catch fire.

H260 In contact with water releases flammable gases which may ignite spontaneously.

H261 In contact with water releases flammable gases.

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

- *****

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, 1272/2008 and Regulation (EU) No 2015/830.

DISCLAIMER OF LIABILITY

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the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Sol. 1: Flammable solids – Category 1

Flam. Sol. 2: Flammable solids – Category 2

Pyr. Sol. 1: Pyrophoric solids – Category 1

Self-heat. 1: Self-heating substances and mixtures – Category 1

Self-heat. 2: Self-heating substances and mixtures – Category 2

Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1

Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2

Ox. Sol. 3: Oxidizing solids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

End of document