

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name Siftrode HF-600 Hardfacing MMA Electrodes
Product code RE600[32/40/50][05]
CAS No. Not applicable.
EC No. Not applicable.
REACH Registration No. Not known.

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

Identified Use(s) SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU15 Manufacture of fabricated metal products, except machinery and equipment
PC38 Welding and soldering products (with flux coatings or flux cores.), flux products
Uses Advised Against None known.

1.3 Details of the supplier of the safety data sheet

Supplier Weldability Sif
Company Identification Peters House,
Address of Supplier Orbital Centre,
Icknield Way,
Letchworth Garden City,
Hertfordshire, UK.
Postal code SG6 1ET
Telephone: +44 (0) 870 330 7757
Fax +44 (0) 800 970 7757
E-mail service@weldability-sif.com
Office hours

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Not classified as dangerous for supply/use.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)
Product Name Siftrode HF-600 Hardfacing MMA Electrodes
Hazard Pictogram(s) None.
Signal Word(s) None.
Hazard Statement(s) None.
Precautionary Statement(s) None.

2.3 Other hazards

Welding fumes: May result in discomfort such as dizziness, nausea, or dryness of irritation of nose, throat or eyes. Dust may have irritant effect on skin, eyes and air passages.

2.4 Additional Information

None.

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3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Not applicable.

3.2 Mixtures

| HAZARDOUS INGREDIENT(S) | CAS No. | EC No. / REACH Registration No. | %W/W | Hazard Statement(s) | Hazard Pictogram(s) |
|-------------------------|------------|---------------------------------|------------|---------------------|---------------------|
| iron | 7439-89-6 | 231-096-4 | 50.0-75.0% | Not classified | |
| Limestone | 1317-65-3 | 215-279-6 | 15.0-25.0% | Not classified | |
| calcium fluoride | 7789-75-5 | 232-188-7 | 0.0-10.0% | Not classified | |
| chromium | 7440-47-3 | 231-157-5 | 0.0-10.0% | Not classified | |
| silicon | 7440-21-3 | 231-130-8 | 0.0-2.5% | Not classified | |
| Cellulose | 9004-34-6 | 232-674-9 | 0.0-2.5% | Not classified | |
| silicon carbide | 409-21-2 | 206-991-8 | 0.0-2.5% | Not classified | |
| manganese | 7439-96-5 | 231-105-1 | 0.0-2.5% | Not classified | |
| titanium dioxide | 13463-67-7 | 236-675-5 | 0.0-2.5% | Not classified | |

4. SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

Inhalation If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact Wash skin with water.

Eye Contact Flush eyes with water for at least 15 minutes.

Ingestion Wash out mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effect on eyes, skin and air passages.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable Extinguishing media In case of fire use carbon dioxide or dry agent. In case of major fire and large quantities: Water jet spray, Foam.

Unsuitable extinguishing media None known.

5.2 Special hazards arising from the substance or mixture

None anticipated. Heating may cause decomposition.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Wear protective gloves.

6.2 Environmental precautions

Do not release large quantities into the surface water or into drains.

6.3 Methods and material for containment and cleaning up

Sweep spilled substances into containers if appropriate moisten first to prevent dusting. Use vacuum to remove dust directly during formation.

6.4 Reference to other sections

See Also Section 8, 13.

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7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide adequate ventilation. Avoid dust generation. Wear gloves, eye protection and an approved dust mask if dust is generated during handling. Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature
Storage life
Incompatible materials

Ambient.
Stable under normal conditions.
None anticipated.

7.3 Specific end use(s)

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU15 Manufacture of fabricated metal products, except machinery and equipment
PC38 Welding and soldering products (with flux coatings or flux cores.), flux products

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

| Occupational Exposure Limits | | | | | | |
|--|------------|---------------------|------------------------------------|------------|---------------------------|------|
| SUBSTANCE. | CAS No. | LTEL (8 hr TWA ppm) | LTEL (8 hr TWA mg/m ³) | STEL (ppm) | STEL (mg/m ³) | Note |
| Silicon carbide (not whiskers) total inhalable | 409-21-2 | | 10 | | | |
| Silicon carbide (not whiskers) respirable dust | 409-21-2 | | 4 | | | |
| Fluoride (inorganic as F) | 7789-75-5 | | 2.5 | | | |
| Calcium carbonate inhalable dust | 1317-65-3 | | 10 | | | |
| Calcium carbonate respirable dust | 1317-65-3 | | 4 | | | |
| Limestone total inhalable | 1317-65-3 | | 10 | | | |
| Limestone respirable | 1317-65-3 | | 4 | | | |
| Marble total inhalable | 1317-65-3 | | 10 | | | |
| Marble respirable | 1317-65-3 | | 4 | | | |
| Chromium | 7440-47-3 | | 0.5 | | | |
| Manganese and its inorganic compounds (as Mn) | 7439-96-5 | | 0.5 | | | |
| Titanium dioxide total inhalable | 13463-67-7 | | 10 | | | |
| Titanium dioxide respirable | 13463-67-7 | | 4 | | | |
| Silicon total inhalable | 7440-21-3 | | 10 | | | |
| Silicon respirable dust | 7440-21-3 | | 4 | | | |
| Cellulose inhalable dust | 9004-34-6 | | 10 | | 20 | |
| Cellulose respirable dust | 9004-34-6 | | 4 | | | |

Region Source
Europe EU Occupational Exposure Limits
United Kingdom Workplace Exposure Limits (WEL)

Remark Notes

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8.2 Exposure controls

8.2.1. Appropriate engineering controls Ensure adequate ventilation.

8.2.2. Personal protection equipment



Eye Protection



Skin protection

Wear suitable gloves if prolonged skin contact is likely.



Respiratory protection

Welding fumes: A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards

Burn hazard/ radiated heat UV/IR : Wear insulating gloves EN407 (heat). Safety spectacles/goggles/full face shield.

8.2.3. Environmental Exposure Controls Do not release large quantities into the surface water or into drains.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

| | |
|--|--|
| Appearance | Solid. |
| | Colour : Grey. |
| Odour | Characteristic. |
| Odour threshold | Not established. |
| pH | Not known. |
| Melting point/freezing point | >1300°C |
| Initial boiling point and boiling range | Not applicable. |
| Flash Point | Not applicable. |
| Evaporation rate | Not known. |
| Flammability (solid, gas) | Non-flammable. |
| Upper/lower flammability or explosive limits | Not available. |
| Vapour pressure | Not known. |
| Vapour density | Not known. |
| Density (g/ml) | Not available. |
| Relative density | Not available. |
| Solubility(ies) | Solubility (Water) : Insoluble. Solubility (Other) : Insoluble. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature | Not known. |
| Decomposition Temperature (°C) | Not available. |
| Viscosity | Not known. |
| Explosive properties | Not explosive. |
| Oxidising properties | Not oxidising. |

9.2 Other information

None.

10. SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

Stable under normal conditions.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

None anticipated.

10.5 Incompatible materials

None anticipated.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

| | |
|--------------------------------|--|
| Acute toxicity - Ingestion | Not classified. |
| Acute toxicity - Skin Contact | Not classified. |
| Acute toxicity - Inhalation | Not classified. |
| Skin corrosion/irritation | Not classified. Dust may cause irritation. |
| Serious eye damage/irritation | Not classified. Welding fumes: May result in discomfort such as dizziness, nausea, or dryness of irritation of nose, throat or eyes. Dust may cause irritation. |
| Skin sensitization data | Not classified. |
| Respiratory sensitization data | Not classified. |
| Germ cell mutagenicity | Not classified. |
| Carcinogenicity | Not classified. |
| Reproductive toxicity | Not classified. |
| Lactation | Not classified. |
| STOT - single exposure | Not classified. Welding fumes: May result in discomfort such as dizziness, nausea, or dryness of irritation of nose, throat or eyes. Dust may cause irritation. |
| STOT - repeated exposure | Not classified. |
| Aspiration hazard | Not classified. |

11.2 Other information

The following table shows the risk factors that may occur during welding. In the table are given the maximum values of the individual elements and chemical compounds in the workplace.

| Gases | CAS | MAK ml/m ³ | MAK mg/m ³ | ACGIH TLV mg/m ³ |
|---|------------|-----------------------|-----------------------|-----------------------------|
| Carbon dioxide CO ₂ | 124-38-9 | 5 | 9,000 | 5,000 |
| Carbon monoxide CO | 630-08-0 | 30 | 33 | 25 |
| Dinitrogen tetraoxide N ₂ O ₄ | 10544-72-6 | - | - | 3 |
| Hydrogen fluoride HF | 7664-39-3 | - | - | 25 |
| Nitrogen monoxide NO | 10102-43-9 | 25 | 30 | 3 |
| Nitrogen dioxide NO ₂ | 10102-44-0 | 5 | 9 | 0.1 |
| Ozone O ₃ | 10028-15-6 | 0.1 | 0.2 | 0.1 |
| Phosgen COCL ₂ | 75-44-5 | 0.1 | 0.4 | 0.3 |
| Formaldehyde CH ₂ O | 50-00-0 | 0.5 | 0.6 | - |

| Fumes and dusts | CAS | MAK mg/m ³ | ACGIH TLV mg/m ³ |
|---|---------------------|------------------------|-----------------------------|
| Fluorides (calcium as fluorine) | 778-75-5 | 2.5 (total dust) | 2.5 total dust |
| Chromium (VI) compounds | 1333-82-0 | 0.1 (total dust) | 0.5 total dust as Cr |
| Copper oxide | 7440-50-8 | 0.1 (total dust) | 0.2 dym |
| Manganese oxide | 7439-96-5 | 0.5 (total dust) | 0.2 dym |
| Nickel N | 7440-02-0 | 0.1 (total dust) | 0.1 total dust |
| Nickel oxides (Ni).Ni ₂ O ₃ | 1313-99-1;1314-06-3 | 0.5 (total dust) | - |
| Molybdenum compounds | 7439-98-7 | 5 (total dust) | 5 total dust |
| Beryllium oxide BeO | 1304-56-7 | 0.002 (total dust) | - |
| Cadmium oxide CdO | 1306-19-0 | 0.03 (total dust) | 0.01 total dust |
| Cobalt oxide CoO | 1307-96-6 | 0.1 (total dust) | - |
| Vanadium (V) oxide | 1314-62-1 | 0.05 (respirable dust) | - |
| Zinc oxide ZnO | 1314-13-2 | 5 (respirable dust) | - |
| Silicium dioxide SiO ₂ | 7631-86-9 | 0.1 (respirable dust) | 0.1 respirable dust |

MAK – maximum workplace concentration in Germany

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12. SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

| | |
|------------------------------------|--------------------------------|
| Toxicity - Aquatic invertebrates | Low toxicity to invertebrates. |
| Toxicity - Fish | Low toxicity to fish. |
| Toxicity - Algae | Low toxicity to algae. |
| Toxicity - Sediment Compartment | Not classified. |
| Toxicity - Terrestrial Compartment | Not classified. |

12.2 Persistence and Degradation

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

The product has high mobility in soil.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

Not known.

13. SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Disposal should be in accordance with local, state or national legislation.

13.2 Additional Information

None.

14. SECTION 14: TRANSPORT INFORMATION**Not classified as hazardous for transport.****15. SECTION 15: REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not listed

Community Rolling Action Plan (CoRAP) titanium dioxide (13463-67-7)

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

Other Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

| | |
|--|---|
| Hazard Pictogram(s) | None. |
| Hazard Statement(s) | None. |
| Precautionary Statement(s) Acronyms | None. CAS : Chemical Abstracts Service CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures DNEL : Derived No Effect Level EC : European Community EINECS : European Inventory of Existing Commercial Chemical Substances LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals STEL : Short term exposure limit STOT : Specific Target Organ Toxicity vPvB : very Persistent and very Bioaccumulative |
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