

Wire electrode for electrical discharge machining

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 06/29/2015

Revision date: 02/26/2020

Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Wire electrode for electrical discharge machining

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Electrical discharge machining

1.3. Supplier

Thermocompact
181, Route de Sarves - Metz-Tessy - CS 70021
PRINGY CEDEX, 74371 - FRANCE
T +33 (0)4 50 27 20 02 - F +33 (0)4 50 27 17 37
thermo@thermocompact.com - www.thermocompact.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None, to our knowledge.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|--------|---------------------|------|-----------------------|
| Copper | (CAS-No.) 7440-50-8 | > 50 | Not classified |
| zinc | (CAS-No.) 7440-66-6 | < 50 | Not classified |

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : In case of inhalation of fumes of molten material or dust: Move the affected person away from the contaminated area and into the fresh air. Get medical advice/attention.
First-aid measures after skin contact : Remove all contaminated clothing and footwear. Rinse with plenty of water. If case of redness or irritation, call a doctor.
First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Consult an eye specialist.
First-aid measures after ingestion : If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : None known.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Special powder against metallic fire (Class D).

5.2. Specific hazards arising from the chemical

Fire hazard : Not classified as flammable according to EC criteria, but may present a risk in the event of a fire.

Explosion hazard : Potential dust explosion hazard from airborne release.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Cupric oxide. Zinc oxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Contain the extinguishing fluids by bunding. Do not breathe fumes.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

For containment : Mechanically recover the product. Gather the product and place it in a spare container that has been suitably labeled.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust.

Hygiene measures : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Protect from moisture. Store in a dry, cool place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|--|---|
| Wire electrode for electrical discharge machining | |
| No additional information available | |
| Copper (7440-50-8) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Copper, as Cu |
| ACGIH TWA (mg/m ³) | 0.2 mg/m ³ Fume (Cu) 1 mg/m ³ Dusts and mists (as Cu) |
| Remark (ACGIH) | TLV® Basis: Irr; GI; metal fume fever |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Copper |
| OSHA PEL (TWA) (mg/m ³) | 0.1 mg/m ³ (Fume (as Cu)) 1 mg/m ³ (Dusts and mists (as Cu)) |

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| | |
|---|---|
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| USA - NIOSH - Occupational Exposure Limits | |
| NIOSH REL (TWA) (mg/m ³) | 1 mg/m ³ Copper (dusts and mists), as Cu 0.1 mg/m ³ (fume) |
| zinc (7440-66-6) | |
| No additional information available | |

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves. Breakthrough time : refer to the recommendations of the supplier

Eye protection:

Safety glasses with side shields

Respiratory protection:

Not necessary with sufficient ventilation

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Solid |
| Color | : Colorless |
| Odor | : odorless |
| Odor threshold | : No data available |
| pH | : Not applicable |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : Not applicable |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : The product is not flammable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : Water: Solubility in water of component(s) of the mixture : • Copper: Insoluble • zinc: Insoluble |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : Not applicable |
| Explosive properties | : Not explosive. |
| Oxidizing properties | : Non oxidizing material according to EC criteria. |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

To our knowledge, the product does not present any particular risk, under normal conditions of use.

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10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Water, humidity. Avoid raising powdered material due to explosion hazard.

10.5. Incompatible materials

Strong bases. Strong oxidizing agents. Halogenated compounds. Ammonia. Alkali metals. Halogenated hydrocarbons.

10.6. Hazardous decomposition products

On contact with acid releases: Hydrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------------|--|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |
| Skin corrosion/irritation | : Not classified pH: Not applicable |
| Serious eye damage/irritation | : Not classified pH: Not applicable |
| 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 |
| Viscosity, kinematic | : No data available |
| Symptoms/effects | : None known. |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with.

12.2. Persistence and degradability

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| | |
|-------------------------------|----------------------------|
| Persistence and degradability | Not readily biodegradable. |
|-------------------------------|----------------------------|

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste treatment methods : Dispose of in accordance with relevant local regulations.
- Additional information : The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Copper (7440-50-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

zinc (7440-66-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

Copper (7440-50-8)

Listed on the Canadian DSL (Domestic Substances List)

zinc (7440-66-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Copper (7440-50-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

zinc (7440-66-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Copper (7440-50-8)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

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zinc (7440-66-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

15.3. US State regulations

| Component | State or local regulations |
|-------------------|---|
| Copper(7440-50-8) | U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List |
| zinc(7440-66-6) | U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 02/26/2020
Other information : Safety data sheet established by : LISAM TELEGIS
17 rue de la Couture F-60400 Passel
www.lisam-telegis.com.

Indication of changes:

This sheet was updated (refer to the date at the top of this page). (see section(s) : 1.3).

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.