

Wire electrode for electrical discharge machining

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 6/19/2023 Revision date: 12/5/2023 Supersedes: 6/19/2023 Version: 2.0

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

1.1. Product identifier

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

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Electrical discharge machining

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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thermo@thermocompact.com - www.thermocompact.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals
United Kingdom	NHS 111/NHS 24/NHS Direct	Edinburgh	111 0845 4647	or call a doctor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for UK law

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with. Not classified as flammable according to EC criteria, but may present a risk in the event of a fire.

2.2. Label elements

Not subjected. The product, which is the subject of this SDS, is in solid form.
No labelling applicable

2.3. Other hazards

Other hazards which do not result in classification : None to our knowledge.

To our knowledge, contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Copper (7440-50-8)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)

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Component	
Zinc (7440-66-6)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)

To our knowledge, the mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
Copper(7440-50-8)	ED: not yet assessed
Zinc(7440-66-6)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Alloy consisting principally of: copper

Name	Product identifier	%	Labelling according to Regulation (EC) No. 1272/2008 [CLP], as amended for UK law
Copper	CAS-No.: 7440-50-8 EC-No.: 231-159-6	> 50	Not classified
Zinc	CAS-No.: 7440-66-6 EC-No.: 231-175-3	< 50	Not classified

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. In 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, both acute and delayed

Symptoms/effects : None known.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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. Advice for firefighters

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. Collect up the product and place it in a spare container suitably labelled.

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 : Store in original container. Protect from moisture. Store in a dry, cool place. After opening, store the product at less than 25°C, and at less than 60% relative humidity. Use within 10 days of unpacking.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Copper (7440-50-8)	
United Kingdom - Occupational Exposure Limits	
Local name	Copper
WEL TWA (OEL TWA) [1]	0.2 mg/m ³ fume (as Cu) 1 mg/m ³ and compounds, dusts and mists (as Cu)
WEL STEL (OEL STEL)	2 mg/m ³ and compounds, dusts and mists (as Cu)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection - Report preview:

Safety glasses with side shields

8.2.2.2. Skin protection

Hand protection - Report preview:

Protective gloves. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard ISO 374-1. Breakthrough time : refer to the recommendations of the supplier

8.2.2.3. Respiratory protection

Respiratory protection - Report preview:

Not necessary with sufficient ventilation

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Not available
Odour	: Odourless.
Odour threshold	: Not available

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Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not applicable
Flammability	: The product is not flammable
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: Not applicable
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not applicable
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: No data available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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.

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 hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK Law.

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

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Viscosity, kinematic	Not applicable
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11.2. Information on other hazards

No additional information available

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.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

12.2. Persistence and degradability

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Persistence and degradability	Not readily biodegradable.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

Copper (7440-50-8)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)
Zinc (7440-66-6)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment 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

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment: No	Not applicable	Not applicable

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

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POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes (UK):

This sheet was updated (refer to the date at the top of this page). (see section(s) : 2 - 7 - 8 - 9 - 11 - 12 - 14 - 15).

Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative

Safety Data Sheet (SDS), UK

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.