

Wire electrode for electrical discharge machining

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 6/29/2015 Revision date: 12/5/2023 Supersedes: 6/28/2023 Version: 3.0

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

Country	Organization/Company	Address	Emergency number	Comment
United states	CHEMTREC		1-800-424-9300 +1 703-527-3887	

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

2.4. Unknown acute toxicity (GHS US)

No additional information available

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

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Name	Product identifier	%	GHS US classification
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.

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.

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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 : 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Copper (7440-50-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Copper, as Cu
ACGIH OEL TWA	0.2 mg/m ³ (Fume) 1 mg/m ³ (Dusts and mists)
Remark (ACGIH)	TLV® Basis: Irr; GI; metal fume fever
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Copper
OSHA PEL (TWA) [1]	0.1 mg/m ³ (Fume (as Cu)) 1 mg/m ³ (Dusts and mists (as Cu))
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	1 mg/m ³ Copper (dusts and mists), as Cu 0.1 mg/m ³ (fume)
Zinc (7440-66-6)	
No additional information available	

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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	: Not applicable
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: The product is not flammable.
Vapor pressure	: Not applicable
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
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.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

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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	: Not applicable
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.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

No additional information available

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

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable

14.6. Special precautions for user

DOT
Not applicable

TDG
Not applicable

IMDG
Not applicable

IATA
Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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Subject to reporting requirements of United States SARA Section 313

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Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Copper	7440-50-8	Present	Active	
Zinc	7440-66-6	Present	Active	

Copper (7440-50-8)

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ 5000 lb

Zinc (7440-66-6)

Subject to reporting requirements of United States SARA Section 313

Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ 1000 lb

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

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All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)

All chemical substances in this product are listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Copper (7440-50-8)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

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 introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
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

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U.S. - California - Proposition 65 - Other information	California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm
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Component	State or local regulations
Copper(7440-50-8)	U.S. - Pennsylvania - RTK (Right to Know) List
Zinc(7440-66-6)	U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Abbreviations and acronyms

DOT	Department of Transportation (DOT)
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
TDG	Transportation of Dangerous Goods

Indication of changes:

This sheet was updated (refer to the date at the top of this page). (see section(s) : 7).

Safety Data Sheet (SDS), USA

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.