

Safety Data Sheet (SDS)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. CHEMICAL PRODUCT	:	EDM Brass Wire
1.2. PRODUCT NAME	:	HBZ-K Wire
1.3. COMPANY NAME	:	Hitachi Metals, Ltd.
1.4. ADDRESS	:	4-10-1 Kawajiri-cho, Hitachi-shi, Ibaraki-ken, 319-1411 Japan
1.5. TEL	:	+81-294-42-5415
1.6. FAX	:	+81-294-43-3685

2. HAZARDS IDENTIFICATION

2.1. GHS CLASSIFICATION

2.1.1. PHYSICAL HAZARDS

Hazard class	Classification	
	Copper	Zinc
Explosives	Not applicable	Not applicable
Flammable gases (Including chemically unstable gases)	Not applicable	Not applicable
Aerosols	Not applicable	Not applicable
Oxidizing gases	Not applicable	Not applicable
Gases under pressure	Not applicable	Not applicable
Flammable liquids	Not applicable	Not applicable
Flammable solids	Classification not possible	Classification not possible
Self-reactive substances and mixtures	Not applicable	Not applicable
Pyrophoric liquids	Not applicable	Not applicable
Pyrophoric solids	Classification not possible	Not classified
Self-heating substances and mixtures	Classification not possible	Classification not possible
Substances and mixtures which, in contact with water, emit flammable gases	Not classified	Classification not possible
Oxidizing liquids	Not applicable	Not applicable
Oxidizing solids	Not applicable	Not applicable
Organic peroxides	Not applicable	Not applicable
Corrosive to metals	Classification not possible	Classification not possible

2.1.2. HEALTH HAZARDS

Hazard class	Classification	
	Copper	Zinc
Acute toxicity (Oral)	Classification not possible	Not classified
Acute toxicity (Dermal)	Classification not possible	Classification not possible
Acute toxicity (Inhalation: Gases)	Not applicable	Not applicable
Acute toxicity (Inhalation: Vapours)	Not applicable	Classification not possible
Acute toxicity (Inhalation: Dusts and mists)	Classification not possible	Not classified
Skin corrosion / irritation	Classification not possible	Not classified
Serious eye damage / eye irritation	Classification not possible	Category 2B
Respiratory sensitization	Classification not possible	Classification not possible
Skin sensitization	Category 1A	Not classified
Germ cell mutagenicity	Classification not possible	Classification not possible

Carcinogenicity	Classification not possible	Classification not possible
Reproductive toxicity	Classification not possible	Classification not possible
Specific target organ toxicity – Single exposure	Category 1 (Digestive system), Category 3 (Respiratory tract)	Classification not possible
Specific target organ toxicity – Repeated exposure	Classification not possible	Classification not possible
Aspiration hazard	Classification not possible	Classification not possible

2.1.3.ENVIRONMENTAL HAZARDS

Hazard class	Classification	
	Copper	Zinc
Hazardous to the aquatic environment (Acute)	Classification not possible	Category 1
Hazardous to the aquatic environment (Long – term)	Classification not possible	Category 1
Hazardous to the ozone layer	Classification not possible	Classification not possible

2.2.SYMBOL

Class	Classification	
	Copper	Zinc
Symbol		
Signal word	Warning, Dangerous warning	Warning
Hazard statement	<ul style="list-style-type: none"> • May cause an allergic skin reaction • Causes damage to organs (digestive system) • May cause respiratory irritation (respiratory tract irritation) 	<ul style="list-style-type: none"> • Causes eye irritation • Very toxic to aquatic life • Very toxic to aquatic life with long lasting effects
Safety measure	<ul style="list-style-type: none"> • Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. • P272: Contaminated work clothing should not be allowed out of the workplace. • Wash ... thoroughly after handling. • Do not eat, drink or smoke when using this product. • Use only outdoors or in a well-ventilated area. • Contaminated work clothing should not be allowed out of the workplace. • Avoid release to the environment. • Wear protective gloves/protective clothing/eye protection/face protection. 	<ul style="list-style-type: none"> • Wash ... thoroughly after handling. • Avoid release to the environment.

First aid	<ul style="list-style-type: none"> • IF ON SKIN: Wash with plenty of water. •IF INHALED: Remove person to fresh air and keep comfortable for breathing. •IF exposed or concerned: Call a POISON CENTER/doctor. •If skin irritation or rash occurs: Get medical advice/attention. 	<ul style="list-style-type: none"> •IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. •If eye irritation persists: Get medical advice/attention.
Storage	<ul style="list-style-type: none"> •Store in a well-ventilated place. Keep container tightly closed. 	-
Disposal	<ul style="list-style-type: none"> •Dispose of contents/container in accordance with local/regional/national/international regulations. 	<ul style="list-style-type: none"> •Dispose of contents/container in accordance with local/regional/national/international regulations.

3.COMPOSITION INFORMATION

Name	Chemical formula	CAS No.	%
Copper	Cu	7440-50-8	59.0~62.0
Zinc	Zn	7440-66-6	Residue

4.FIRST AID

4.1.IF INHALED

Remove person to fresh air and keep comfortable for breathing.
If you feel unwell call a doctor.

4.2.IF ON SKIN

Take off contaminated clothing and wash it before reuse.
Wash with plenty of water.
If you feel unwell call a doctor.

4.3.IF IN EYES

Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
If you feel unwell call a doctor.

4.4.IF INGESTION

Call a doctor.

5.FIRE FIGHTING MEASURE

Not applicable:product is non-flammable.

6.ACCIDENTAL RELEASE

Not applicable:Product is Solid

7.HANDLLING AND STORAGE

7.1HANDLLING

- 7.1.1.Product is heavy. Take care not to drop it.
- 7.1.2.Wire offcuts are sharp. Wear work gloves, etc. and do not tuch with bare hands.
- 7.1.3.Product is springy. Take care avoid lacerations and eye injuries due to springing.

7.2.STORAGE

- 7.2.1.Store indoors in a location with stable temperature and humidity that is protected from rain, wind and direct sunlight
- 7.2.2.Avoid storing in sloping or unstable locations as this may lead to products falling or piles collapsing.
- 7.2.3.Protect from contact with acids, alkalis, strong oxidants, chloride salts, sulfides and other chemicals.

8.EXPOSURE CONTROLS AND PERSONAL PROTECTION

- 8.1.EQUIPMENT MEASURES : None in particular
- 8.2.PROTECTIVE EQUIPMENT
 - 8.2.1.RESPIRATORY PROTECTION : None in particular
 - 8.2.2.HAND PROTECTION : Wear gloves if there is a risk of injury to hands.
 - 8.2.3.EYE PROTECTION : If there is a risk that wire offcuts will spring back, wear protective goggles.
 - 8.2.4.SKIN AND BODY PROTECTION : Wear safety boots when handling heavy objects.

9.PHYSICAL AND CHEMICAL PROPERTIES

- 9.1.COLOR : Yellow
- 9.2.SMELL : Odorless
- 9.3.MELTING POINT : 905~930°C
- 9.4.VAPOR PRESSURE : No data
- 9.5.SPECIFIC GRAVITY : 8.39g/cm³
- 9.6.SOLUBILITY : Insoluble in water

10.STABILITY AND REACTIVITY

Stable on the normal handling condition.

11.TOXICOLOGICAL INFORMATION

- 11.1.ACUTE TOXICITY : No data available.
- 11.2.SKIN CORROSION/IRRITATION : No data available.
- 11.3.SERIOUS EYE DAMAGE AND IRRITATION : Since the substance has been documented to be slightly irritating, showing such reactions as conjunctival redness and edema in a test using rabbits (Initial Risk Assessment Report (NITE, CERi, NEDO) (2007)), it was classified into Category 2B.
- 11.4.RESPIRATORY AND SKIN SENSITIZATION : No data available.
- 11.5.GERM CELL MUTAGENICITY : No data available.
- 11.6.CARCINOGENICITY : No data available.
- 11.7.REPRODUCTIVE TOXICITY : No data available.
- 11.8.SPECIFIC TARGET ORGAN TOXICITY : No data available.
 - SINGLE EXPOSURE
- 11.9. SPECIFIC TARGET ORGAN TOXICITY : No data available.
 - REPEATED EXPOSURE
- 11.10.ASPIRATION HAZARDS : No data available.

12.ECOLOGICAL INFORMATION

- 12.1.HAZARDOUS TO THE AQUATIC ENVIRONMENT (ACUTE) : Since its 72h-ErC50 = 0.15 mg/L for algae (*Pseudokirchneriella subcapitata*) (EHC (No. 221, 2001)), the substance was classified into Category 1.
- 12.2.HAZARDOUS TO THE AQUATIC ENVIRONMENT (LONG-TERM) : Since it is a metallic compound, it is estimated not to be rapidly degradable, and its preexisting classification for acute toxicity is Category 1, the substance was classified into Category 1.

13.DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with local/regional/national/international regulations.

14.TRANSPORT INFORMATION

Not a dangerous good as defined in transport regulations.

15.REGULATORY INFORMATION

Follow local regulations.

16.OTHER INFORMATION

GHS Classification Results by National Institute of Technology and Evaluation.