SAFETY DATA SHEET (SDS)

SDS No. MAC-CP-202308E Prepared on: January 5, 2026

1 Product and company identification

Product name: Copper Plated Piano Wire
- JIS G3522 SWP-A MAC WIRE CP SWPA
- JIS G3522 SWP-B MAC WIRE CP SWPB

Company name: MARUBISHI CO., LTD.
Address: 399 Minaminaka-Kashii, Izumisano City, Osaka, 598-0035 Japan.
Department in charge: Quality control department
Phone number: +81-72-466-0022
Fax number: +81-72-466-0099

2 Hazard identification

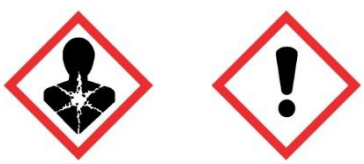
GHS classification:
<Health hazards>

Hazard class	Hazard category	Hazard statements
Skin corrosion/irritation	Category 3	Causes skin irritation (H315)
Serious eye damage/ irritation	Category 2B	Causes eye irritation (H320)
Respiratory sensitization	Category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled (H334)
Skin sensitization	Category 1	May cause an allergic skin reaction (H317)
Carcinogenicity	Category 2	Suspected of causing cancer (H351)
Reproductive toxicity	Category 1B	May damage fertility or the unborn child (H360)
Specific target organ toxicity (single exposure)	Category 1	Causes damage to organs (respiratory organs, kidney, digestive organs) (H370)
	Category 3	May cause respiratory irritation (respiratory tract irritation) (H335)
Specific target organ toxicity (repeated exposure)	Category 1	Causes damage to organs through prolonged or repeated exposure (H372)

<Environmental hazards>

Hazard class	Hazard category	Hazard statements
Hazard to the aquatic environment Long-lasting (chronic)	Category 4	May cause long-lasting damages to aquatic life (H413)

GHS labels:
<Pictures or symbols>



<Indication to call for attention>
DANGER, WARNING

<Information on danger and toxicity>
See above in the column of “Hazard statements”

Precautionary statements
(Exposure controls/personal protection)
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash hands thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- [In case of inadequate ventilation] wear respiratory protection.

(First-aid measures)
- IF ON SKIN: Wash with plenty of water and soap.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If a person feels unwell: Call a POISON CENTER/doctor.
- If skin irritation or rash occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

(Disposal considerations)
- Dispose of contents/container in accordance with international, national, prefectural, or municipal regulations.

3 Composition/information on ingredients

Chemical substance/Mixture: Mixture
Name of chemical substance or common name: Alloy steel
<Main ingredients and concentrations>

Ingredients		Concentration (wt%)	CAS No.	PRTR[*1] No.	ISHA[*2] No.
Carbon	[C]	Less than 0.85	7440-44-0	-	-
Silicon	[Si]	Less than 0.32	7440-21-3	-	-
Manganese	[Mn]	Less than 0.60	7439-96-5	Class 1 412	550
Phosphorus	[P]	Less than 0.02	7723-14-0	-	-
Sulfur	[S]	Less than 0.02	7704-34-9	-	-
Nickel	[Ni]	Less than 0.10	7440-02-0	Class 1 308	418
Chrome	[Cr]	Less than 0.10	7440-47-3	Class 1 87	142
Copper (Including plating)	[Cu]	Less than 4.30	7440-50-8	-	379
Iron	[Fe]	Balance	7439-89-6	-	-

*1: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (materials being contained by 1 wt% or more; Class 1 materials being contained by 0.1 wt% or more)
*2: Industrial Safety and Health Act (the threshold value depends on the material)

Note 1: The concentrations of the ingredients vary in the above range depending on steel grade. Refer to individual mill sheets.

4 First-aid measures

In case of inhaling fume, dust, etc. during fusion-cutting, welding, cutting, grinding, etc. of the steel material, take the following first aid steps and if necessary, get medical attention.

- Inhalation: Move to fresh air and rest in a position comfortable for breathing.
- Contact with skin: Wash well with soap and water.
- Getting into eye: Wash well with clean running water.
- Swallow: Immediately induce vomit, and then gargle to clean mouth.
- Burn injury: Cool the affected area.
- Cut wound: Keep the wound clean.

5 Fire-fighting measures

The steel material is inflammable and does not catch fire in the ordinary environment. Should a fire occur in the surrounding areas, take appropriate fire-fighting actions to the material on fire. Note that the fine powders may be flammable and explosive.

- Proper extinguishing agents: Use appropriate fire extinguishing agents depending on the situation.
- Prohibited fire extinguishing agents: No information.

6 Accidental release measures

The steel material is solid in a normal state and does not spill in the ordinary environment. However, if fume or dusts are generated when the steel material is processed, take the following actions:

- Personal precautions: Wear appropriate protective equipment to prevent the fume or dust from entering the lungs or eyes.
- Protective equipment and emergency procedures: Refer to "Personal protection" in "8. Exposure controls/Personal protection"and "4. First aid measures."
- Environmental precautions: Collect the dust generated during cutting, grinding, etc.
- Methods and materials for containment and cleaning up: Use an appropriate method to collect the dust generated when the steelmaterial is processed and take measures to prevent spills.

7 Handling and storage

Handling:
<Technical measures>

- When the steel material is fusion-cut, welded, cut, ground, or processed in other ways, and fume or dust are generated, wear appropriate protective equipment.
- If fume, dust, etc. are generated, provide the necessary local or entire ventilation.

<Safety precautions>
- This product is so heavy that make sure that it does not fall, collapse, or drop.
- Be careful not to cut the skin with the cut edge etc. of the steel material.
- Be careful not to inhale fume or dust generated when the steel material is processed.
- Be careful not to get a burn injury during fusion-cutting and welding.
- When a hoop for binding the steel material etc. is cut, be careful not to get injured from backlash or by the end of the hoop.

<Contact avoidance>
- Avoid contact with unnecessary water leaks, acids, alkalis, or substances containing them.

Storage:
<Conditions for safe storage>
- Avoid exposure to high temperature and humidity. If necessary, cover with sheets, covers, and other packing materials to prevent rainwater intrusion or rust.

<Safe containers and packaging materials>
- No information.

8 Exposure controls/personal protection

The steel material is solid in a normal state. No useful information is available on exposure controls and personal protection in the general environment.
However, if fume and dust are generated during fusion-cutting, welding, cutting, grinding, etc. provide the following equipment and protective measures:

<Allowable concentration>

Component	CAS No.	The Japan Society of Occupational Health Allowable conc. (mg/m^3)	ACGIH[*1] TLVs・TWA(mg/m^3)
Manganese [Mn]	7439-96-5	0.2	0.02(R), 0.1(I)[*2]
Nickel [Ni]	7440-02-0	1.0	1.5
Chromium [Cr]	7440-47-3	0.5	0.5
Copper [Cu]	7440-50-8	-	1[*3] , 0.2[*4]

Note 1: The notation "-" in the table means that it neither corresponds to any classification nor is classifiable.
Note 2: Search results of NITE homepage: Chemical Substance Comprehensive Information Provision System.
*1: American Conference of Governmental Industrial Hygienists
*2: (I); Inhalable fraction (inhalable dust) (R); Respirable fraction (inhalable dust)
*3: Dust and mists, as Cu
*4: Fume, as Cu

- Equipment measure: If fume or dusts are generated, provide adequate ventilation to ensure a safe work environment.
- Protection: If fume or dust are generated, wear an appropriate respiratory protection gear, protective gloves, protective glasses, protective clothing, safety shoes, etc.

9 Physical and chemical properties

- Physical state: Solid
- Color: Copper
- Odor: Odorless

- Melting point/freezing point: 1400℃ or higher
- Boiling point or initial boiling point and boiling range: No information
- Flammability: Nonflammable
- Lower and upper explosion limit/flammability limit: Nonflammable
- Flash point: Nonflammable
- Auto-ignition point: Nonflammable
- Decomposition temperature: No information
- pH: No information
- Kinematic viscosity: No information
- Solubility: Insoluble in water
- Partition coefficient n-octanol/water (log value): Not applicable
- Vapor pressure: Not applicable
- Density and/or relative density: 7-9 g/cm^3
- Relative vapor density: No information
- Particle characteristics: No information

10 Stability and reactivity

- Reactivity: No information
- Chemical stability: Stable in the general environment.
- Possibility of hazardous reactions: Contact with acid may cause a generation of toxic gas.
- Conditions to avoid: Avoid exposure to high humidity or contact with incompatible material.
- Incompatible materials: Oxidizer, etc.
- Hazardous decomposition products: Fume generated during fusion-cutting, welding, and other processing may contain metallic compounds.

11 Toxicological information

< Health hazards>

Hazard class	[Mn]	[Ni]	[Cr]	[Cu]
Acute toxicity	-	-	-	-
Skin corrosion/irritation	Class 3	-	-	-
Serious eye damage/irritation	Class 2B	-	Class 2	-
Respiratory sensitization	-	Class 1	Class 1A	-
Skin sensitization	-	Class 1	Class 1A	Class 1A
Germ cell mutagenicity	-	-	-	-
Carcinogenicity	-	Class 2	-	-
Reproductive toxicity	Class 1B	-	-	-
Specific target organ toxicity (single exposure)	Class 1	Class 1	Class 3	Class 1, 3
Specific target organ toxicity (repeated exposure)	Class 1	Class 1	-	-
Aspiration hazard	-	-	-	-

Note 1: NITE homepage: Chemical Substance Comprehensive Information Provision System Search results (see related GHS for the ground of the classification)

Note 2: The notation "-" in the table means that it neither corresponds to any classification (or outside of the classification) nor is classifiable.
Note 3: For information on the classification, refer to the summary in Clause 2. Hazard identification.

12 Ecological information

<Environmental hazards>

Hazard class	[Mn]	[Ni]	[Cr]	[Cu]
Hazard to the aquatic environment Short-term (acute)	-	-	-	-
Hazard to the aquatic environment Long-term (chronic)	Class 4	-	-	-
Persistence and degradability	No info.	No info.	No info.	No info.
Bio-accumulative potential	No info.	No info.	No info.	No info.
Mobility in soil	No info.	No info.	No info.	No info.
Hazard in the ozone layer	No info.	-	-	-

Note 1: NITE homepage: Chemical Substance Comprehensive Information Provision System Search results (see related GHS for the ground of the classification)
Note 2: The notation "-" in the table means that it neither corresponds to any classification (or outside of the classification) nor is classifiable.
Note 3: For information on the classification, refer to the summary in Clause 2. Hazard identification.

13 Disposal considerations

<Waste from residues>

Dispose of product by using an environmentally friendly method which is in accordance with regulations on industrial waste laws, or relevant prefectural or municipal ordinances.

<Contaminated containers and packaging>

In case that pollutants are attached to containers and packaging, dispose them in an appropriate and environmentally safe manner in accordance with industrial waste laws and related ordinances determined by prefectures or municipalities, similarly to waste from residues.
In case that recycling of empty containers/packaging, etc. is desirable in consideration of the environment, recycle them safely and in a manner desirable for health. Recipients should respond according to disposal rules in the region.

14 Transport information

This product is not subject to any international transport regulations.

15 Regulatory information

- Industrial Safety and Health Act
- Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

16 Other information

<Reference materials and others>

- JIS Z 7253:2019 "Hazard communication of chemicals based on GHS - Labelling and Safety Data Sheet (SDS)"

- Guide for making labels based on the revised Industrial Safety and Health Act (August 2015, Japan Chemical Industry Association)
- GHS compliance - Label display and SDS provision system in the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register/PRTR), the Industrial Safety and Health Act, and the Poisonous and Deleterious Substances Control Act (February 2021, Ministry of Economy, Trade and Industry, and Ministry of Health, Labor and Welfare)
- National Institute of Technology and Evaluation (NITE) homepage
- Workplace safety site (Ministry of Health, Labor and Welfare)

This Safety Data Sheet is prepared in accordance with JIS Z 7253:2019 "Hazard Communication of Chemicals based on GHS - Labelling and Safety Data Sheet (SDS)".

This Safety Data Sheet is prepared based on currently available information as "reference information" for ensuring the safety of workers and preventing health hazards and is provided to the companies which handle this product. Therefore, this Safety Data Sheet is not intended to guarantee the safety of the product, and this product may pose hazards which we do not have knowledge about.

The companies that handle this product should follow the instructions given in this Safety Data Sheet and are responsible for taking appropriate measures according to the work they perform.