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Japan / English

1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier****Product Name** Conductive Filler**Product Code(s)** 20-8500**(M)SDS Number** 1337864_J**Other means of identification****Synonyms** No information available**Registration Number(s)** No information available**Recommended use of the chemical and restrictions on use****Recommended Use** Laboratory Use Only**Uses advised against** No information available**Details of the supplier of the safety data sheet****Manufacturer** Buehler**Manufacturer Address** Loop-X 6th Floor 3-9-15
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www.buehler.com/Japan**Phone number** +81 (0)3 5439 5077**E-mail Address** info.japan@buehler.com**Legal Entity** ITW Japan KK**Legal Entity Address** 1-4-4, Kitasuna, Koto-ku, Tokyo**Emergency telephone number**

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2. HAZARDS IDENTIFICATION**GHS Classification**

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2

Specific target organ toxicity (single exposure)	Category 1
Category 1 Kidneys, Respiratory system.	
Specific target organ toxicity (repeated exposure)	Category 1
Category 1 Respiratory system	
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Label elements



Signal word

Danger

Hazard statements

- H317 - May cause an allergic skin reaction
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H351 - Suspected of causing cancer
- H410 - Very toxic to aquatic life with long lasting effects
- H370 - Causes damage to the following organs: Kidneys, Respiratory system.
- H372 - Causes damage to the following organs through prolonged or repeated exposure: Respiratory system.

Precautionary Statements - Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Wear protective gloves/protective clothing/eye protection/face protection
- In case of inadequate ventilation wear respiratory protection
- Contaminated work clothing should not be allowed out of the workplace
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid release to the environment

Precautionary Statements - Response

- Specific treatment (see supplemental first aid instructions on this label)
- IF exposed or concerned: Call a POISON CENTER or doctor
- IF ON SKIN: Wash with plenty of water and soap
- If skin irritation or rash occurs: Get medical advice/attention
- Take off contaminated clothing and wash it before reuse
- IF INHALED: Remove person to fresh air and keep comfortable for breathing
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor
- Collect spillage

Precautionary Statements - Storage

- Store locked up

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

Other hazards

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	Weight-%	ENCS - Japan Existing	ISHL No.	CAS-No
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		and New Chemical Substances		
Nickel	100%	No information available	No information available	7440-02-0

Pollutant Release and Transfer Registry (PRTR)

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed.

Chemical name	Weight-%	Class	Cabinet order number	Relevant substance, conversion factor
Nickel 7440-02-0	100%	Class I designated chemical substance	1-308	

Industrial Safety and Health Law

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

Chemical name	ISHL Notifiable Substances	Threshold Values (%)
Nickel 7440-02-0	ISHL Notifiable Substances	0.1

Poisonous and Deleterious Substances Control Law Not applicable

Chemical name	Poisonous and Deleterious Substances	Threshold Values (%)
Nickel 7440-02-0		0.1

4. FIRST AID MEASURES

First aid measures

- General advice** Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
- Inhalation** May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.
- Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
- Skin contact** Wash with soap and water. May cause an allergic skin reaction. Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.
- Ingestion** May produce an allergic reaction. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
- Symptoms** May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives.
- Self-protection of the first aider** Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.
- Note to physicians** May cause sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties Not flammable.

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by inhalation and skin contact. May cause sensitization by skin contact.
Special Extinguishing Media	Cool drums with water spray.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Other Information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Reference to other sections	See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.
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Storage

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines .

Chemical name	Japan	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Nickel 7440-02-0	TWA: 1 mg/m ³	0.1 mg/m ³	TWA: 1.5 mg/m ³

Biological occupational exposure limits Not applicable

Engineering controls Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear suitable protective clothing.

Hand protection Wear suitable gloves.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state Solid
Appearance Gray
Odor Odorless
Color No information available
Odor Threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks Method</u>
pH	No data available	None known
Melting / freezing point	1455°C	None known
Boiling point / boiling range	2730°C	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	8.9 g/cm ³	None known
Water Solubility	Virtually insoluble	
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	Not applicable
Liquid Density	No information available
Bulk Density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Stability	Stable under normal conditions.
Explosion Data	
Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None
Possibility of hazardous reactions	None under normal processing.
Incompatible materials	None known based on information supplied.
Hazardous Decomposition Products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause sensitization in susceptible persons. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitization by skin contact.
Ingestion	Specific test data for the substance or mixture is not available. May cause additional affects as listed under "Inhalation".
Symptoms	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives.

Numerical measures of toxicity - Product Information

Unknown acute toxicity	100 % of the mixture consists of ingredient(s) of unknown toxicity
	0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
	100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
	100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
	100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
	100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Numerical measures of toxicity - Component Information

Chemical name	LD50 Oral	LD50 Dermal	Inhalation LC50

Nickel 7440-02-0	> 9000 mg/kg (Rat)		> 10.2 mg/L (Rat) 1 h
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	May cause sensitization by inhalation. May cause sensitization by skin contact.
Germ cell mutagenicity	No information available.
Carcinogenicity	Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	Carcinogenicity	IARC
Nickel 7440-02-0	2	Group 2B

Legend:

IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans

STOT - single exposure	Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs.
STOT - repeated exposure	No information available.
Target Organ Effects	Skin. Respiratory system. Eyes. Gastrointestinal tract (GI). Lungs. Nasal Cavities. Kidney.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects. .

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Nickel	72h EC50: = 0.18 mg/L (Pseudokirchneriella subcapitata) 96h EC50: 0.174 - 0.311 mg/L (Pseudokirchneriella subcapitata)	96h LC50: > 100 mg/L (Brachydanio rerio) 96h LC50: = 1.3 mg/L (Cyprinus carpio) 96h LC50: = 10.4 mg/L (Cyprinus carpio)	-	48h EC50: > 100 mg/L 48h EC50: = 1 mg/L

Persistence and Degradability	No information available.
Bioaccumulation	There is no data for this product.

Mobility in soil	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. TRANSPORT INFORMATION

IMDG

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*
EmS-No.	F-A, S-F
Description	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*, 9, III

ADR

UN-No.	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*
Description	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*, 9, III, (E)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special Provisions	None
Special Provisions	274, 335, 601, 375
Classification code	M7
Tunnel restriction code	(E)

IATA

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*
Description	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*, 9, III

Japan

UN Number	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s.*
Hazard Class	9
Packing group	III
Special Provisions	BK2, 274, 335

15. REGULATORY INFORMATION

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

National Regulations

Japan

Pollutant Release and Transfer Registry (PRTR)

See section 3 for more information

Industrial Safety and Health Law

Harmful Substances Whose Names Are to be Indicated on the Label

Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57 and ISHL Ordinance Article 33)

ISHL Notifiable Substances

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

Fire Service Law:

Not applicable

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)

Not applicable

Labor Standards Act

Occupational illnesses caused by chemical substances - Labor Standards Act article 75, Enforcement Ordinance article 35 and Notification Designating Elements and Compounds of Chemical Substances and Occupational Illnesses Table 1-2 item 4-1

Water Pollution Control Act

Designated substance may cause adverse effects to human health or the living environment per Water Pollution Control Law article 2 and Enforcement Order article 3-3

Waterworks (Water Supply) Act

Waterworks (Water Supply) Act article 4 water quality guidelines

Air Pollution Control Law

Hazardous air pollutants (HAPs) per Air Pollution Control Law article 2, paragraph 1, item 3 and Enforcement Order article 1

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION

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Key or legend to abbreviations and acronyms used in the safety data sheet**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	-	Skin designation
C	Carcinogen		

Disclaimer

This SDS complies with the requirements of JIS Z 7250:2010 and JIS Z 7252:2009 (Japan). The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



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End of Safety Data Sheet