

# MATERIAL SAFETY DATA SHEET

Revision date: January 21, 2011

Revision No.: 14

## 1. Product and Company Information

Name of material : C7025 (OLIN7025)  
 Classification : Copper Alloy

Company Name : DOWA-OLIN METAL CORPORATION  
 & Information Technical Service Section  
 2630 Shingai, Iwata-shi, Shizuoka-ken, 438-0025 JAPAN  
 Tel: +81-538-37-5111, Fax: +81-538-37-0147

## 2. Hazards Identification

### 2-1 Nickel

#### GHS Classification

##### Physical Hazards

Explosives	: Not applicable
Flammable gases	: Not applicable
Flammable aerosols	: Not applicable
Oxidizing gases	: Not applicable
Gases under pressure	: Not applicable
Flammable liquids	: Not applicable
Flammable solids	: Classification not possible
Self-reactive substances and mixtures	: Not applicable
Pyrophoric liquids	: Not applicable
Pyrophoric solids	: Not classified
Self-heating substances and mixtures	: Classification not possible
Substances and mixture which, in contact with water, emit flammable gases	: Not classified
Oxidizing liquids	: Not applicable
Oxidizing solids	: Not applicable
Organic peroxides	: Not applicable
Corrosive to metals	: Classification not possible

##### Health Hazards

Acute toxicity (oral)	: Not classified
Acute toxicity (skin)	: Classification not possible
Acute toxicity (inhalation: gas)	: Not applicable
Acute toxicity (inhalation: vapour)	: Classification not possible
Acute toxicity (inhalation: dust, mist)	: Classification not possible
Skin corrosion / irritation	: Classification not possible
Serious eye damages / eye irritation	: Classification not possible
Respiratory sensitization	: Category1
Skin sensitization	: Category1
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Category2
Reproductive toxicity	: Category1B
Specific target organ toxicity: single exposure	: Category1 (respiratory apparatus, kidney)
Specific target organ toxicity: repeated exposure	: Category1 (respiratory apparatus)
Aspiration hazard	: Classification not possible

##### Environmental Hazards

Aquatic toxicity (acute)	: Classification not possible
Aquatic toxicity (chronic)	: Category4

#### Pictogram



**2-2 Copper**

**GHS Classification**

**Physical Hazards**

Explosives	: Not applicable
Flammable gases	: Not applicable
Flammable aerosols	: Not applicable
Oxidizing gases	: Not applicable
Gases under pressure	: Not applicable
Flammable liquids	: Not applicable
Flammable solids	: Classification not possible
Self-reactive substances and mixtures	: Not applicable
Pyrophoric liquids	: Not applicable
Pyrophoric solids	: Classification not possible
Self-heating substances and mixtures	: Classification not possible
Substances and mixture which, in contact with water, emit flammable gases	: Classification not possible
Oxidizing liquids	: Not applicable
Oxidizing solids	: Not applicable
Organic peroxides	: Not applicable
Corrosive to metals	: Classification not possible

**Health Hazards**

Acute toxicity (oral)	: Classification not possible
Acute toxicity (skin)	: Classification not possible
Acute toxicity (inhalation: gas)	: Not applicable
Acute toxicity (inhalation: vapor)	: Not applicable
Acute toxicity (inhalation: dust, mist)	: Classification not possible
Skin corrosion / irritation	: Classification not possible
Serious eye damages / eye irritation	: Classification not possible
Respiratory sensitization	: Classification not possible
Skin sensitization	: Classification not possible
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Not classified
Reproductive toxicity	: Classification not possible
Specific target organ toxicity: single exposure	: Category3 (Respiratory tract irritation)
Specific target organ toxicity: repeated exposure	: Category1 (Liver)
Aspiration hazard	: Classification not possible

**Environmental Hazards**

Aquatic toxicity (acute)	: Classification not possible
Aquatic toxicity (chronic)	: Category4

**Pictogram**



**3. Specification of substance**

Chemical name : Cu-Ni-Si-Mg alloy

Element	Ni	Si	Mg	Cu
CAS No.	7440-02-0	7440-21-3	7439-95-4	7440-50-8
Identification No. by PRTR Law	Class 1 – No. 308			
Enforcement Serial No. by Industrial Safety and Health Laws	Appendix No.9-418			Appendix No.9-379
Chemical Composition (Nominal wt%)	3.0	0.65	0.15	Bal.

**4. First aid**

**4-1** Caught in the eyes:

Immediately flush out dust with sufficient clean water and get physician's treatment for pain or uncomfortable feel.

**4-2** Struck to the skin: Soap up the portion.

**4-3** Inhaled: If a large quantity of vapors and particles are inhaled, move the patient to a place of clean air immediately. Give the patient oxygen inhalation and have him/her receive immediate physician's treatments in case it seems to be necessary.

**4-4** Swallowed: If large quantities of vapors and particles are swallowed, make him/her vomit and then have him/her physician's treatments immediately.

**5. Action for fire**

Extinguishing: -- (Incombustibles)

**6. Action for leakage**

No requirement for solid metal product.

**7. Notes for handling and storage**

Handling: To prevent the inhalation of vapors or particles, wear personal protection such as a mask in welding or grinding processes.  
The cut ends or edges of the strip are sharp enough for cut, so take sufficient care when handling.

Storage: Do not store together with acids.

**8. Avoidance of exposure**

Acceptable concentration:

Japan Society for Occupational Health:

	Ni	1mg/m <sup>3</sup>	
OSHA PEL *	Ni	1mg/m <sup>3</sup>	
ACGIH TWA **	Cu	1mg/m <sup>3</sup>	(dust)
	Cu	0.2mg/m <sup>3</sup>	(fume or vapor)

Protective outfit

For mouth:	Dustproof mask
For eyes:	Dustproof glasses
For hands:	Rubber or plastic gloves
For body:	--

\* OSHA PEL: Occupational Safety and Health Administration U. S. Department Permissible Exposure Limit

\*\* ACGIH TWA: American Conference of Governmental Industrial Hygienists Time Weighted Average

**9. Physical / chemical properties**

Appearance	: Metallic brightness
Melting point	: 1095 degree C
Specific gravity	: 8.82

**10. Hazardous information**

Stability / reactivity: Stable under normal handling conditions.

**11. Toxicological information**

(No information about the alloy, but information on each element is shown below.)

Acute toxicity:

Orally administered - mouse LD50 >4000mg/kg (Copper dusts)  
Nickel dust or fume can irritate nose, mouth, throat, eyes, respiratory organ and lungs. They may cause allergic dermatitis, cough, wheezing, shortness of breath and chest tightness.  
Ingestion of Nickel dust in large amounts may affect blood, heart, thyroid and spleen.

Local Effect:

Prolonged and repeated contact with Nickel may cause skin sensitization.

Chronic Toxicity:

Prolonged and repeated inhalation and exposure of Nickel may cause asthma, and may also affect lungs.

**Carcinogenicity**

Nickel is classified as 2B (possibly carcinogenic to humans) by IARC\*, and A5 (not suspected as human carcinogen) by ACGIH.

\* IARC: International Agency for Research on Cancer

**12. Ecological Information**

(No information about the alloy, but information on each element is shown below.)

Water Pollution Control Law: Life environment clause (for Copper)

**13. Note for scrapping**

C7025 should be collected and recycled as a metal.

Contact scrapping agent.

**14. Note for transportation**

Handle with care when transporting as follows:

Take care not to allow the air to cause corrosion, turnover, drop or packing disorder.

**15. Applicable legislation**

(No information about the alloy, but information on each element is shown below.)

Water Pollution Control Law: Life environment clause (for Copper)

PRTR Law: Nickel is Class 1 – designated chemical substances

C7025 does not correspond to Poisons, Deleterious Substances, Specific Deleterious Substances, in Poisonous and Deleterious Substances Control Law.

**16. Other Information**

We have tried to make it as accurate and useful as possible, but can take no responsibility for its use, misuse or accuracy. We have not verified this information, and can not guarantee that it is up-to-date.