

## Safety Data Sheet

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**1. Product Name**

NC25, NC50, MoldAce (Eco Corson Hard)

**2. GHS Classificat:**

These alloys are unclassified; GHS classification information for constituent elements is listed below.

**2.1 Copper (Cu)**

Physical Hazards	Not Classified	
Health Hazards	Skin Sensitization STOT - Single Exposure	Category 1A Category 1 (digestive organs) Category 3 (respiratory irritation)
Environmental Hazards	Not Classified	

## GHS Label Elements

## Pictogram



Signal Word Danger / Warning

Hazard Statements H317: May cause an allergic skin reaction  
 H335: May cause respiratory irritation  
 H370: Causes damage to organs (digestive organs)

## Precautionary Statements

## Safety Measures

Minimize generation and build-up of dust particles.  
 Do not inhale dust / fumes.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 In case of inadequate ventilation wear respiratory protection.

Emergency Measures	<p>IF ON SKIN: Wash with plenty of water.</p> <p>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>IF exposed or concerned: Call a doctor.</p> <p>If skin irritation or rash occurs: Get medical advice/attention.</p> <p>If experiencing respiratory symptoms: Call a doctor.</p> <p>Wash contaminated clothes before reusing.</p>
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Storage	Store locked up.
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## 2.2 Nickel (Ni)

Physical Hazards	Not Classified
Health Hazards	Not Classified
Environmental Hazards	Not Classified

Risks not covered by GHS classification    None known

## 2.3 Silicon (Si)

Physical Hazards	Flammable solid	Category 2
Health Hazards	Eye irritant	Category 2B
Environmental Hazards	Not Classified	

GHS Label Elements  
Pictogram



Signal Word	Warning
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Hazard Statement	<p>H228: Flammable solid</p> <p>H320: Causes eye irritation</p>
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Precautionary Statements  
Safety Measures


Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.

Emergency Measures	IF ON SKIN: Wash with plenty of water.
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Storage	Store locked up.
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Risks not covered by GHS classification    None known

## 2.4 Chromium (Cr)

Physical Hazards	Not Classified	
Health Hazards	Eye irritation Respiratory sensitization Skin sensitization Germ cell mutagenicity STOT – single exposure	Category 2B Category 1 Category 1 Category 2B Category 2 (systemic toxicity) Category 3 (respiratory irritation)
Environmental Hazards	Not Classified	
GHS Label Elements Pictogram		
Signal Word	Danger / Warning	
Hazard Statement	H320: Causes eye irritation H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause an allergic skin reaction H341: Suspected of causing genetic defects H335: May cause respiratory irritation H371: May cause damage to organs	
Precautionary Statements Safety Measures	Minimize generation and build-up of dust particles. Do not inhale dust / fumes. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.	
Emergency Measures	IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Call a doctor. If skin irritation or rash occurs: Get medical advice/attention. If experiencing respiratory symptoms: Call a doctor. Wash contaminated clothes before reusing.	
Storage	Store locked up.	
Risks not covered by GHS classification	None known	

## 2.5 Tin (Sn)

Physical Hazards	Not Classified	
Health Hazards	STOT – repeat exposure	Category 1 (lungs)
Environmental Hazards	Not Classified	

GHS Label Elements  
Pictogram



Signal Word	Danger / Warning
Hazard Statement	H372: Causes damage to organs through prolonged or repeated exposure (lung)

Precautionary Statements  
Safety Measures

Minimize generation and build-up of dust particles.  
Do not inhale dust / fumes.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
In case of inadequate ventilation wear respiratory protection.

Emergency Measures	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Call a doctor. If experiencing respiratory symptoms: Call a doctor. Wash contaminated clothes before reusing.
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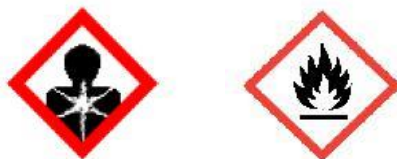
Storage Store locked up.

Risks not covered by GHS classification None known

## 2.6 Aluminum (Al)

Physical Hazards	Water-reactive combustible substance	Category 2.3
Health Hazards	STOT – single exposure STOT – repeated exposure	Category 1 (respiratory organs) Category 1 (respiratory organs)
Environmental Hazards	Not Classified	

GHS Label Elements  
Pictogram



Signal Word Danger / Warning

Hazard Statement H261: In contact with water releases flammable gas  
 H370: Causes damage to organs (respiratory organs)  
 H372: Causes damage to organs through prolonged or repeated exposure

Precautionary Statements  
 Safety Measures

Minimize generation and build-up of dust particles.  
 Do not inhale dust / fumes.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 In case of inadequate ventilation wear respiratory protection.

Emergency Measures

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 IF exposed or concerned: Call a doctor.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If experiencing respiratory symptoms: Call a doctor.  
 Wash contaminated clothes before reusing.

Storage

Store locked up.

Risks not covered by GHS classification

None known

### 3. Material Characteristics

Classification

: Mixture

Scientific Name

NC25: Copper-Nickel-Silicon-Chromium Alloy

NC50: Copper-Nickel-Silicon-Chromium-Tin Alloy

MoldAce: Copper-Nickel-Silicon-Chromium-Aluminum Alloy

Hazardous Ingredients :

Names and composition (mass%) of Class 1 Designated Chemical Substances as per the "Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management" (PRTR Law)

	Cu	Ni	Si	Cr	Sn	Al
Item	Copper	Nickel	Silicon	Chromium	Tin	Aluminum
NC25 Composition	bal.	6.5~8.8	1.5~2.5	0.3~1.3	-	-
NC50 Composition	bal.	1.5~3.0	0.4~1.0	0.5~1.5	0.1~0.3	-
MoldAce Composition	bal.	6.5~8.8	1.5~2.5	0.3~1.3	-	0.5~2.0
Government No.	N/A	308	N/A	87	N/A	N/A
CAS No.	7440-50-8	7440-02-0	7440-21-3	7440-47-3	7440-31-5	7429-90-5

### 4. First-Aid Measures

Damage from fumes or dust

- Immediately remove victim to fresh air.
- If victim has trouble breathing, assist with breathing and seek medical attention.

Eye contact

- If foreign matter enters the eyes, do not rub. Wash out eyes with plenty of water.
- If irritation persists, seek medical attention.

- Skin contact
  - Brush off foreign matter with hands and wash the affected area well with water.
  - If irritation persists, seek medical attention.

## 5. Fire-Fighting Measures

Not applicable (non-combustible)

## 6. Accidental Release Measures

Product is a solid, so accidental release / spillage is not a concern under normal environmental conditions.

## 7. Handling and Storage

- No special handling needed, though wearing gloves is recommended when handling products with sharp corners and edges.
- In high-humidity locations, store product indoors.

## 8. Exposure Controls / Personal Protection

Melting, casting, cutting, thermal cutting and grinding are classified as "dusty work" according to the "Ordinance on Prevention of Hazards Due to Dust," and must be managed

- Keep source of dust sealed, or install local exhaust ventilation system
- Wear respiratory protective equipment
- Periodically clean up accumulated dust
- If dust gets on work clothes, clean clothes by washing
- Wash hands and gargle after working

Permissible Exposure Limit

Material	Form	Permissible Density (mg/m <sup>3</sup> )	
		Japan Society for Occupational Health	ACGIH
Cu	Fumes	—	0.2
	Dust and mist (as Cu)	—	1
Ni	Nickel	1	1.5
Si	Silicon	—	10
Cr	Chromium metal	0.5	0.5
Sn	Tin metal	—	2
Al	Aluminum	—	10

## 9. Physical and Chemical Properties

	<u>NC25</u>	<u>NC50</u>	<u>MoldAce</u>
Appearance	: metallic	metallic	metallic
Color	: copper	copper	copper
Relative Density	: 8.5	8.7	8.6
Boiling Point	: N/A	N/A	N/A
Melting Point	: 1100°C	1100°C	1090°C
Solubility	: Insoluble in water	Insoluble in water	Insoluble in water
Odor	: Odorless	Odorless	Odorless

## 10. Stability and Reactivity

- Stable under normal handling conditions.
- Contact with acid or similar chemical substance may produce hydrogen gas.

## 11. Toxicological Information

- Acute Toxicity
  - Inhaling dust particles from fumes, etc. may induce the following: cough, chest pain, fever.
- Chronic Toxicity
  - Inhaling dust particles from fumes, etc. may induce the following: pneumoconiosis.
- Carcinogenicity
  - Nickel  
Japan Society for Occupational Health : 2B
  - ACGIH** : A5
  - Chromium  
ACGIH : A4

## 12. Ecological Information

- No data on the ecological effects of this product is currently available.

## 13. Disposal Considerations

- Dispose of product in an environmentally conscious and appropriate manner. Disposal must be in accordance with all applicable industrial waste regulations, including prefectural and municipal requirements.

## 14. Transport Information

- None in particular. During sea transport, minimizing the product's exposure to sea water is recommended.

## 15. Applicable Regulatory Laws

- Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management
- Industrial Safety and Health Law

## 16. Other Information

The information on this data sheet was compiled based on our current knowledge and available documentation. It may be replaced in the event that new information becomes available. Furthermore, the precautions presented herein apply only to normal handling of the product, and do not constitute a guarantee of safety.

### Cited References

Handbook of Industrial Poisoning (Ishiyaku Publishers Inc.)  
Hazardous Materials Handbook (Maruzen Publishing Co., Ltd.)  
Metals Data Book (Maruzen Publishing Co., Ltd.)  
NITE Chemical Information Risk Platform (CHRIP)