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# Material Safety Data Sheet

Printing date 03/11/2008

Version - No. 1

Reviewed on 03/11/2008

## 1 Identification of substance

- · Product details
- · Trade name: N17
- · Application of the substance / the preparation Semi-finished product
- Identification Plates, Inc. 1555 High Point Drive Mesquite Texas 75149 (800) 395-2570

## 2 Hazards identification

- · Hazard description: Not applicable.
- Information pertaining to particular dangers for man and environment:

The product does not have to be labelled due to the calculation procedure of international guidelines.

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· Additional information:

Semi-finished products in copper or copper-alloys, as offered for sale as manufactures present no health hazard to man or for the aquatic environment.

### 3 Composition/Data on components

- · Chemical characterization
- · Description: Metal in compact form.
- · UNS-number: C77000

· Dangerous components:		
CAS: 7440-50-8 RTECS: GL 5325000	copper	53-56%
CAS: 7440-66-6 RTECS: ZG 8600000	zinc	balance%
CAS: 7440-02-0 RTECS: QR 5950000	nickel	17-19%

### 4 First aid measures

· General Information: No special measures required.

## 5 Fire fighting measures

- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · For safety reasons unsuitable extinguishing agents: Water in case of liquid melt.
- · Protective equipment: In case of liquid melt use protective equipment.

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# 6 Accidental release measures

- · Person-related safety precautions: Not required.
- · Measures for environmental protection: Not required

## 7 Handling and storage

- · Handling:
- · Information for safe handling: No special measures required.
- Information about protection against explosions and fires: No special measures required.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Further information about storage conditions: None.

# 8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.

· Components with limit values that require monitoring at the workplace:

7440-50-8 copper PEL 1\* 0.1\*\* mg/m3 as Cu \*dusts and mists \*\*fume REL 1\* 0.1 R\*\* mg/m3 as Cu \*dusts and mists \*\*fume TLV | Short-term value: (0.1)\*\* mg/m3 Long-term value: (1)\* (02)\*\* mg/m3 \*dusts and mists; \*\*fume; as Cu

#### 7440-02-0 nickel

PEL 1 mg/m<sup>3</sup> REL 0.015 mg/m<sup>3</sup> Elemental 1.5 l mg/m<sup>3</sup> elemental

Additional Occupational Exposure Limit Values for possible hazards during processing: general dust limit (A - alveolar fraction, E - respirable fraction)

TLV (ACGIH) (A) 3 (E) 10 mg/m<sup>3</sup>

1314-13-2 zinc oxide

15\* 5\*\* 5\*\*\* mg/m3 PEL

Dust only \*total dust \*\*respirable dust \*\*\*fume

Short-term value: C 15\* 10\*\*\* mg/m3 REL

Long-term value: 5 5\*\*\* mg/m3

\*15-min; dust only \*\*\*fume

Short-term value: 10 R mg/m3 TLV

Long-term value: 2 R mg/m3

- · Additional information: The lists that were valid during the creation were used as basis.
- · Personal protective equipment:
- · General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Do not inhale dust / smoke / mist.

- Breathing equipment: Use a suitable industrial gas mask when work-place-limits are exceeded.
- · Protection of hands:

Protective gloves are recommended, depending upon how the semis are further processed.

· Eye protection:

Protective goggles are recommended, depending upon how the semis are further processed.

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· Body protection:

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Wear suitable protective clothing, depending upon how the semis are further processed.

· General Information		
Form:	Solid	
Color:	silver-grey	
Odor:	Odorless	
Change in condition Melting point/Melting ran Boiling point/Boiling ran	ge: 1040-1090℃ (1904-1994೯) (Lit.) ge: Undetermined.	
Flash point:	sh point: Not applicable.	
Danger of explosion:	Product does not present an explosion hazard.	

# 10 Stability and reactivity

· Solubility in / Miscibility with

- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
- Dangerous reactions Reacts with strong acids.
- · Dangerous products of decomposition: No dangerous decomposition products known.

Insoluble.

### 11 Toxicological information

- · Acute toxicity:
- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### 12 Ecological information

· General notes:

For semi-finished products in copper or copper-alloys no information regarding ecology is suitable, as they are practically insoluble in water.

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# 13 Disposal considerations

- · Product:
- · Recommendation: Contact manufacturer for recycling information.

# 14 Transport information

- · DOT regulations:
- · Hazard class:
- · Land transport ADR/RID (cross-border):
- · ADR/RID class: -
- · Maritime transport IMDG:
- · IMDG Class:
- · Marine pollutant: No
- · Air transport ICAO-TI and IATA-DGR:
- · ICAO/IATA Class: -

Sara	
Section 355 (extremely hazardous substances):	
None of the ingredients is listed.	
Section 313 (Specific toxic chemical listings):	
7440-50-8 copper	
7440-02-0 nickel	
TSCA (Toxic Substances Control Act):	
All ingredients are listed.	
Proposition 65	· · · · · · · · · · · · · · · · · · ·
Chemicals known to cause cancer:	
7440-02-0 nickel	
Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
Cancerogenity categories	
EPA (Environmental Protection Agency)	
7440-50-8 copper	
IARC (international Agency for Research on Cancer)	
7440-02-0 nickel	
NTP (National Toxicology Program)	
7440-02-0 nickel	
TLV (Threshold Limit Value established by ACGIH)	
7440-02-0 nickel	·

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· NIOSH-Ca (National Institute for Occupational Safety and Health)

7440-02-0 nickel

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Product related hazard informations:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

# 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing MSDS: Department testing laboratories
- · Contact:

Dr. Michael Ebner

Phone (+)49 (0)731/944-3706

- AEU