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## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER	SUPERWHITE – Copper Alloy.
1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST	Alloy for goldsmith and jewelry.
1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET	Pandora Alloys srl Via Galvani, 14 20094 Corsico (MI) Italia ☎ +39 02 45 86 40 35 ☎ +39 02 45 86 98 40 ✉ info@pandoralloys.com 💻 www.pandoralloys.com
1.4 EMERGENCY TELEPHONE NUMBER	Centro antiveleni c/o Niguarda Hospital P.za Ospedale Maggiore, 3 Milan – Italy ☎ +39 02 66 10 10 29 (24h)

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## 2. HAZARDS IDENTIFICATION

2.1 SUBSTANCE CLASSIFICATION CLASSIFICATION ACCORDING TO REGULATION 1272/2008/EC	The product contains nickel > 1% The product is classified as Carcinogen Category 1 B (probable human carcinogen mainly based on animal studies), Mutagenic Cat 2 (suspected of causing genetic defects), Toxic for reproduction Cat 2 (suspected of damaging fertility or the unborn child). Causes damage to target organs (lungs, liver, kidneys, blood) repeated exposure STOT RE-1. Very toxic to aquatic life with long lasting effects - Cat.1.
CLASSIFICATION ACCORDING TO DIRECTIVE 1999/45/EC	This product is classified as a carcinogen Cat 2 (probable human carcinogen), Mutagenic Cat 3 (possible risk of impaired fertility and harm to the unborn child), Harmful by ingestion and inhalation of smoke and dust, and highly toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
2.2 LABEL ELEMENTS	The product should NOT be labeled in accordance with paragraph 1.3.4 all. I EC Regulation N.1272/2008. Nevertheless, we suggest to refer to the legislation EC 94/27 and subsequent modifications for effects on skin.
2.3 FURTHER HAZARDS PBT OR VPVB PROPERTIES	An evaluation of PBT and vPvB properties as per Attachment XIII has not been done.
FURTHER HAZARDS	None to report.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Cu, Zn - NOT DANGEROUS

Substance	No. CAS	No. EINECS	No Index	Classification	Concentration	TLV (mg/m3)
NICKEL	7440-02-0	231-111-4	028-002-00-7	Carc. 2, Skin Sens. 1 H351; H317  Carc. Cat. 3; Xn R: 40-43	40%	1.0 (metal) (ACGIH)

### 4. FIRST AID MEASURES

#### 4.1 DESCRIPTION OF FIRST AID MEASURES

AFTER SMOKE INHALATION	It's good practice melting under extraction hoods or in closed casting machines, in case of fumes inhalation ventilate the room. In case of illness seek medical advice.
AFTER CONTACT WITH SKIN	No danger reported from normal use. Seek medical advice in presence of known sensitivity. In case of contact with molten metal, evaluate the extent of the burn and seek medical attention.
AFTER CONTACT WITH EYES	In event of irritation from fumes oxide, rinse with water. Consult your doctor if you develop conjunctivitis.
AFTER INGESTION	No risks reported.
4.2 MAIN SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED	Vapor / fumes / dust: coughing, sneezing or lacrimation. In case of repeated or prolonged exposure, possible gastrointestinal disturbances, breathing difficulty, hypotension, cramps, and fever. Symptoms can occur with a certain delay.
4.3 INDICATION OF THE POSSIBLE NEED OF IMMEDIATE MEDICAL ADVICE OR SPECIAL TREATMENTS	Follow the procedures of safety agreed in your company

### 5. EXTINGUISHING METHODS

- 5.1 Extinguishing media  
 Recommended extinguisher                      None in particular  
 Forbidden extinguisher                          Do not use water on molten metals
- 5.2 Special dangers due to the substance or to the mix  
 None in particular. Molten alloy might release smokes and vapor made up of oxides.
- 5.3 Recommendations to the employees in charge of fire extinction  
 Use adequate protections in case of smokes.  
 Follow the procedures of extinguishing agreed in your company.

### 6. MEASURES IN CASE OF ACCIDENTAL RELEASE

- 6.1 Personal precautions, protection devices and procedures in case of emergency  
 Inert material. Use individual protection devices in case of certain sensibility to the mix. Use protection devices in case of exposition to vapors and smokes.  
 During working time, follow the safety procedures agreed in your company.
- 6.2 Environmental precautions  
 Avoid release in the environment

- 6.3 Methods and materials for containment and collection  
Collect material using devices suitable to re-use the material itself and/or its recovery by the producer.
- 6.4 reference to other sections  
See sections 8 e 13

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**7. HANDLING AND STORAGE**

- 7.1 Precautions for a safe handling  
Alloys can be handled without any particular precaution. During casting, melting, mechanical works, annealing and welding, provide for ventilation. Do not breathe dust, vapors and smokes.
- 7.2 Conditions for a safe storage, including possible incompatibilities.  
Alloys can be stored without any particular precaution. For a better use, it is suitable a covered and dry place for storage.
- 7.3 Final specific uses  
Copper alloy to be molten with pure gold and silver.

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**8. EXPOSITION CONTROL/PERSONAL PROTECTION**

- 8.1 Control parameters  
Limit values for zinc oxide TLV-TWA - smokes: 5 mg/m<sup>3</sup>, dusts: 10 mg/m<sup>3</sup>
- 8.2 Controls of exposition
- |                        |  |
|------------------------|--|
| Respiratory protection | Workplace should be ventilated, in case of need use protective masks and aspiration while casting. If aspiration devices are not available, use a ventilation device suitable for casting process. |
| Hands protection       | Use gloves suitable for casting.   |
| Eyes protection        | Use protective glasses while casting.  |
| Skin protection        | Use protective clothes and gloves  |

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

- 9.1 Information about the basic physical and chemical properties
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|---|--------------------------------|
| Aspect: alloy in drops                  | Odour: odourless               |
| pH: n.a.                                |                                |
| Casting point: circa 1.000°C            | Boiling point: not detected    |
| Relative density: ~ 9 g/cm <sup>3</sup> | Solubility: Insoluble in water |
- 9.2 Other information                                      None

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**10. STABILITY AND REACTIVITY**

- 10.1 Reactivity  
Possible development of hydrogen in presence of acids
- 10.2 Chemical stability  
Stable product
- 10.3 Possible dangerous reactions  
Possible development of hydrogen in presence of acids
- 10.4 Conditions to avoid  
Avoid higher temperatures than the melting interval
- 10.5 Incompatible materials  
Oxidizing agents, acids and caustic products
- 10.6 Dangerous product due to decomposition  
Hydrogen in presence of acids

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 information about toxicological effects

Acute toxicity	n.a.
Irritation	n.a.
Corrosivity	n.a.
Sensitization	In case of inhalation and/or contact with skin in concentration $\geq 1\%$
Toxicity with repeated dose	n.a.
Cancer-causing	n.a.
Mutagenicity	n.a.
Toxic for reproduction	n.a.

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## 12. ECOLOGICAL INFORMATION

12.1 Toxicity	n.a.
12.2 Persistence and degradability	n.a.
12.3 Bioaccumulative potential	n.a.
12.4 Mobility on soil	n.a.
12.5 Results on PBT and VPVB value	n.a.
12.6 Other negative effects	n.a.

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## 13. DISPOSAL CONSIDERATION

13.1 Methods of waste treatment	Reuse if possible. Follow the procedures and laws of your Country.
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## 14. INFORMATION ON TRANSPORT

14.1 UN number	n.a.
14.2 UN shipping rule	n.a.
14.3 Class of danger referred to transport	n.a.
14.4 Packing group	n.a.
14.5 Danger for environment	n.a.
14.6 Special precautions for users	n.a.
14.7 Collect transport according to Marpol 73/78 and IBC code	n.a.

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## 15. INFORMATION ON REGULATIONS

15.1 Rules and laws on health, security and environment, specific for the mix	
This chart follows the directions of CE Rule 1907/2006	
15.2 Chemical safety value	no

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## 16. OTHER INFORMATION

This chart has been written as per our knowledge at the present date. The user is asked to check if information are suitable and complete referred to the use of the alloy. Information on this chart are a description of characteristics of this product about its safety; this chart is not a guarantee of properties of this product.

This chart substitutes every previous communication.