Trade names: CuZn37Pb2, CuNi18Zn19Pb1

Supplier: Lamineries Matthey SA

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1. Identification of preparation and company

Preparation: leaded Brass and leaded Nickel silver are copper-zinc, respectively copper-nickel-zinc alloys. They are supplied as solid, compact and non-inhalable metal in the form of slabs or cold rolled strips.

Manufacturer/Supplier:

Lamineries Matthey SA

Route de Neuchâtel 6, CH-2520 La Neuveville

Tel.: + 41 (0)32 752 32 32 e-mail: <u>salesexport@matthey.ch</u>

Fax: + 41 (0)32 752 32 00 Website: www.matthey.ch

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Tel.: + 41 (0)32 752 32 32 Fax: + 41 (0)32 752 32 00

2. Composition/Ingredients

Ingredient	% by mass	EINECS-/ EC-No.	CAS-No.	Classification	Hazard symbol
Copper	balance	231-159-8	7440-50-8		
Zinc	< 39	231-175-3			
Lead	< 3	231-100-4		R23 R25	
Nickel	< 19	231-111-4	7440-02-0	Carc. Cat. 3, R40, R43*	Xn

3. Hazard identification

Semi-finished products in copper-alloys, as offered for sale present no health hazard to man or for aquatic environment. However, when being used or further processed, compounds, dusts and fumes may be developed; workplace related limiting values apply (refer to point 8).

Nickel containing alloys:

Hazard Designation: Xn Harmful, Classification: R 40, R 43

- Causes concern owing to possible carcinogenic effects but in respect of which the available information is not adequate for making satisfactory assessment (R40 or category 3 carcinogens).
- May cause sensitization by skin contact (R43).

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Lead containing alloys:

Hazard Designation: Xn Harmful, Classification: R 23, R 25

- R23 Toxic by inhalation
- R25 Toxic if swallowed

Lead may be fatal if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract. Solid lead is believed to present a relatively low hazard to health, but it is a cumulative poison, and can cause serious harm if inhaled as a powder, or ingested over a long period.

4. First-aid measures

The alloys as in Sect. 1 do not display any harmful effects of a dangerous substance, except for lead, that might require first-aid measures. The following advice refers to the effect of fumes and dust during processing.

Inhalation: Fresh air supply, on complaint – consult a physician.

Skin contact: Lead and lead compounds may be absorbed through the skin on prolonged

exposure; the symptoms of lead poisoning described for ingestion exposure may

occur in general.

Eye contact: Rinse the eyes with open lids under flowing water for several minutes.

Ingestion: The symptoms of lead poisoning include abdominal pain and spasms, nausea,

vomiting, headache. Consult a physician.

Persons with pre-existing kidney, nerve or circulatory disorders or with skin or eye problems may be more susceptible to the effects of lead.

5. Fire fighting measures

- Appropriate extinguishers: CO2, extinguishing powder or water jet; in case of big fire,

extinguish with water jet or alcohol-resistant foam.

- Special protection equipment: no special measures necessary

6. Accidental release measures

- Person-based precautions: not necessary

- Environmental protection measures: no special measures required

- Process for cleaning / absorption: mechanical absorption

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7. Handling und storage

General: The handling of the alloys as in Sect. 1 does not require any of the special safety measures normally applied to dangerous substances. The usual measures for the prevention of physical injury are sufficient.

Handling: no special measures required

- Instruction for safe handling : no special measures required

- Instructions for fire and explosion

prevention: no special measures required, com. No. 5

- Storage:

requirements for storage rooms and tanks : none collective storage instructions: not required further information storage conditions . about none

7.3 Specific uses:

The material complies with the requirements of Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment and of the Directive 2000/53/EC on end-of life vehicles.

8. Exposure controls and personal protection

8.1 Exposure limit values :

There are no occupational exposure limits for the alloys as in Sect. 1, although some do apply to certain elements contained in these preparations, such as Pb, Ni, and/or some of their compounds. The relevant national limit specifications

Limits of airborne substances in the place of work in accordance with TRGS 900

CAS-No.	designation of substance	%	Type	Value Unit
7440-50-8	Copper dust	100	MAC	1 mg/m³
7440-50-8	Copper smoke	100	MAC	0,1 mg/m ³
7440-31-5	Fumes containing zinc	100	MAC	1 mg/m³
7439-92-1	Lead	100	MAC	0,15 mg/m ³
7440-02-0	Nickel compounds in the	100	MAC	0,05 mg/m ³
	form of inhalable droplets			

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8.2 Exposure controls:

During thermal and mechanical processing (e. g. welding, cutting, grinding) fumes and dust can be produced with constituents underlying certain limit values. Suitable exhausters should be fitted for this reason.

Respiratory protection: If observance of the limits cannot be guaranteed by means of

exhausters, personnel should be provided with face or breathing

masks with breathing filter class P3.

Eye protection: Suitable goggles should be worn to protect against airborne dust,

flying sparks etc.

Hand / body protection: May become necessary depending on the activity being performed.

Skin protection: Wear protective clothes to avoid direct contact with the material to

be handled and to keep off any dust which may develop.

9. Physical and chemical properties

General: Solid with metallic, matt to brilliant yellow to grey surface. Odourless.

Important advice regarding health and environmental protection and safety:

Melting point/Melting range: 840 - 1,020 °C Boiling point/Boiling range: Not known.

Flashpoint, flammability, fire-related properties:

The product is not flammable.

The product is not explosive.

Vapor pressure, vapor density, vaporization rate:

The product has no measurable vapor

pressure.

Density at 20°C: 8.5-8.9 kg/dm³ Solubility in water : Insoluble.

Other information: Not required.

10. Stability and reactivity

- Thermal decomposition / conditions to be avoided: no decomposition in case of

appropriate application

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- Substances to be avoided: incompatible with ammonia and various acids

- Dangerous reactions: dangerous gases after reaction with acids

- Dangerous decomposition products: unknown

11. Toxicological information

Acute toxicity: not knownSpecific symptoms in animal experiment: not known

- Primary irritating effect:

on the skin: no irritating effect

sensitivity: no sensitivity effect known

Additional toxicological instructions: when appropriately handled and properly used,

this product does not exhibit any health damaging effects according to our experience

and the information available to us.

The substance is not subject to obligatory designation pertaining to the EC-lists, in the last valid edition.

12. Ecological information

- General instructions: water hazardous class 0 (self classification): in general not water hazardous
- Draining high metal concentrations in natural waters is not permitted!

13. Disposal considerations

Alloys scrap is a valuable raw material and easy to recycle for reuse. Collect and return the residue to the manufacturer or to a scrap metal dealer; do not dispose in household garbage.

14. Transport information

No known restrictions

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15. Regulatory information

 Designation acc. to EC-guidelines:
 The substance does not belong to the EC-list of substances to be compulsorily designated or to any other relevant literature sources known to us.

Water hazardous class:
 WHC 0 (self classification): in general not hazardous to water

Conventional precaution measures applicable when handling chemicals should be observed.

16. Other information

The details are based on our current stand of knowledge, however, they neither depict assurance of product properties nor establish any contractually legal relationship.

This material safety data sheet describes products of Lamineries Matthey SA with respect to their safety requirements. The details given are based on the information and experience available, but they do not provide or imply guarantees regarding product characteristics, nor do they suppose a legal or contractual obligation of any kind.