

[in accordance with Regulation EC 1907/2006 (REACH) as amended]

Section 1: Identification of the substance/mixture and of the company/undertaking

| 1.1 | Product identifier | |
|-----|---|--|
| 1.1 | | |
| | Trade name: | BRASS NICKEL-MANGANESE-ALUMINUM (Ni content lower than 1%) |
| | Туре: | CuZn38Pb1,5; CW607N; CuZn38Pb1; CuZn40Al1; CuZn31Si1, CW718R; CuZn39Mn1AlPbSi; CW708R; CuZn40Al2; CuZn37Mn3Al2; CW713R; CuZn37Mn3Al2PbSi |
| 1.2 | 1.2 Relevant identified uses of the substance or mixture and uses advised against | |
| | Relevant identified uses: | alloy used in machining – especially on machines, for the production of the machine parts, for the fittings, valves, bolts and nuts. |
| | Uses advised against: | not determined. |
| 1.3 | Details of the supplier of the sat | Fety data sheet |
| | Manufacturer: | Walcownia Metali "Dziedzice" S.A. |
| | Address: | ul. Kaniowska 3, 43-502 Czechowice-Dziedzice , Poland |
| | Telephone/Fax number: | +48 32 714 30 00 |
| | Product information: | sekretariat@walcownia.com.pl, www.walcownia.com.pl |
| | E-mail address for a competent person responsible for msds: <u>biuro@theta-doradztwo.pl</u> | |

1.4 Emergency telephone number

112

Section 2: Hazards identification

2.1 Classification of the substance or mixture Product is not classified as hazardous for human health and life.

2.2 Label elements

In accordance with CLP regulation, alloys of metals, which despite being classified as dangerous in accordance with the classification criteria, do not pose any danger to human health via exposure by inhalation, if swallowed or in contact with skin or for the aquatic environment in a form in which they are placed on the market, do not have to be labeled in accordance with the above mentioned regulation.

2.3 Other hazards

Lead in the metallic form is not classified as dangerous. However, there is a danger of lead poisoning in its processing. Lead compounds such as oxides and salts have toxic and mutagenic effects, may accumulate in the body and impair fertility. Components do not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation REACH.

Section 3: Composition/information on ingredients

3.1 Substances

- Not applicable.
- 3.2 Mixtures

Product characteristic

| Chemical composition of the alloy [%] | | | | | |
|---------------------------------------|-------|---------|-------|---------|---------|
| Ni | Zn | Mn | Cu | Pb | AI |
| 0,3-1 | 31-39 | 1,5-2,5 | 58-61 | 0,0-0,8 | 0,3-1,5 |



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| Dangerous components | |
|-----------------------|---|
| <u>Nickel</u> | |
| Range of percentages: | < 1% |
| CAS number: | 7440-02-0 |
| EC number: | 231-111-4 |
| Registration number: | - |
| Classification: | Carc. 2 H351; Skin Sens. 1 H317; STOT RE 1 H372 |
| | |

Full text of each relevant H phrase is given in section 16 of SDS.

Section 4: First aid measures

4.1 Description of first aid measures

<u>General information</u>: at room temperature (except for the dangers of a mechanical nature), alloy in metallic form does not pose risk to human health and life.

<u>Skin contact</u>: usually exposure in this route is not possible. If irritation persists, wash the affected skin thoroughly with soap and water. Consult a doctor if irritation occurs.

<u>Eye contact</u>: usually exposure in this route is not possible. However, if filings/sharp elements get into eyes, immediately wash out with plenty of water or physiological fluid (0,9% NaCl or 5% glucose). Immediately obtain medical attention.

Ingestion: exposure in this route is not possible.

Inhalation: usually exposure in this route is not possible. However, in case of a malaise, take the victim to fresh air.

- 4.2 Most import ant symptoms and effects, both acute and delayed No reports of effects or critical hazards with normal use of the product.
- 4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after a thorough examination of the injured person.

Section 5: Firefighting measures

5.1 Extinguishing media

<u>Suitable extinguishing media</u>: non-flammable product. Use extinguishing measures that are appropriate to the environment.

Unsuitable extinguishing media: none.

5.2 Special hazards arising from the substance or mixture

During combustion, product may release toxic gases, vapors, and fumes containing toxic lead compounds. Do not inhale combustion products – it can be dangerous for health.

5.3 Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Use personal protective equipment.

6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify the appropriate emergency services.



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6.3 Methods and material for containment and cleaning up

Collect the product mechanically to labeled waste containers or reuse it.

6.4 Reference to other sectionsAppropriate conduct with waste product – section 13. Appropriate personal protective equipment – section 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Before break and after work wash hands carefully. See also section 8.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, clean and covered place. Do not store with the products, that can react with an alloy, e.g. acids, bases. Protect against weather.

7.3 Specific end use(s)

No information about the applications other than listed in subsection 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Product does not contain any components with occupational exposure limit values at working place in Community.

Please check any national occupational exposure limit values in your country.

8.2. Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke whilst handling with the material. Before break and after work wash hands thoroughly.

Hand and body protection

Use skin protection measures appropriate to the thermal, chemical or mechanical hazards.

Eye/face protection

In case of risk of eye contamination wear tightly-fitting goggles.

Respiratory protection

Not needed in normal conditions of work.

Personal protective equipment must meet requirements of directive 89/686/CE. Employer is obliged to ensure equipment adequate to activities carried out, with quality demands, cleaning and maintenance.

Environmental exposure controls

Avoid release to the environment, do not allow to enter the sewage system. Any emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| physical state: colour: | solid yellow |
|--|-----------------|
| odour: | odourless |
| odour threshold: | not determined |
| pH: | not applicable |
| melting point/freezing point: | 870-900°C |
| initial boiling point and boiling range: | not determined |
| flash point: | not applicable |
| | |



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| aven anotion rate. |
|---|
| evaporation rate: |
| flammability (solid, gas): |
| upper/lower flammability or explosive limits: |
| vapour pressure: |
| relative vapour density: |
| vapour density: |
| density: |
| solubility(ies): |
| partition coefficient: n-octanol/water: |
| auto-ignition temperature: |
| decomposition temperature: |
| explosive properties: |
| oxidising properties: |
| kinematic viscosity: |
| Other information |

9.2 Other information No additional data.

not determined not flammable not applicable not determined not determined ca. 8,3 g/cm insoluble in water not determined not applicable not determined not displayed not displayed not applicable

Section 10: Stability and reactivity

10.1 Reactivity

Product is reactive; reacts with oxidants, peroxides, acids and bases.

- 10.2 Chemical stability Product is stable under normal conditions of usage and storage.
- 10.3 Possibility of hazardous reactions In contact with acids and bases reacts with liberation of hydrogen or nitrogen oxides (reaction with nitric acid).
- 10.4 Conditions to avoid Moisture.
- 10.5 Incompatible materials

Strong oxidants, bromine, chlorine trifluoride, copper nitrate, ammonium nitrate, sodium and potassium peroxide, hydrogen peroxide, sodium nitride, chlorine, acids, bases.

10.6 Hazardous decomposition products

None.

| Section 11: | Toxicological | information |
|-------------|---------------|-------------|
|-------------|---------------|-------------|

11.1 Information on toxicological effects

Acute component toxicity

Lead

TCL₀ (inhalation, man) $0,01 \text{ mg/m}^3$

TDL₀ (oral, rat) 790-1140 mg/kg

Lead compounds damage the peripheral and central nervous system and cause anemia, mainly due to inhibition of synthesis of hemoglobin red blood cells. Lead accumulates in the body, mainly in the bones, as well as in the kidney and other tissues. Acute symptoms of poisoning may occur after a few days of exposure to high concentrations of dust or fumes in excess of the airborne limit values. Symptoms of exposure include abdominal pain, diarrhea followed by constipation, loss of appetite, metallic taste in the mouth, nausea, vomiting, fatigue, insomnia, muscle weakness, joint pain, irritability, headache, dizziness, increased blood pressure. May occur anemia, kidney damage, liver and female gonads and central nervous system. Lead compounds cause severe irritation and hypersensitivity of respiratory tract, shortness of breath, short breath and asthma symptoms. There is a danger of cumulative effects.



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| Toxicity of product |
|---|
| Acute toxicity |
| Based on available data, the classification criteria are not met. |
| Skin corrosion/irritation |
| Based on available data, the classification criteria are not met. |
| Serious eye damage/irritation |
| Based on available data, the classification criteria are not met. |
| Respiratory or skin sensitisation |
| Based on available data, the classification criteria are not met. |
| Germ cell mutagenicity |
| Based on available data, the classification criteria are not met. |
| <u>Carcinogenicity</u> |
| Based on available data, the classification criteria are not met. |
| Reproductive toxicity |
| Based on available data, the classification criteria are not met. |
| STOT-single exposure |
| Based on available data, the classification criteria are not met. |
| STOT-repeated exposure |
| Based on available data, the classification criteria are not met. |
| Aspiration hazard |
| Based on available data, the classification criteria are not met. |
| |

Section 12: Ecological information

| 12.1 | Toxicity |
|------|----------|
|------|----------|

No specific toxicity test results. This product is not classified as hazardous for the environment.

12.2 Persistence and degradability

Not biodegradable.

- 12.3 Bioaccumulative potential Bioaccumulation is not expected.
- 12.4 Mobility in soil Product is not mobile in soil and aquatic environment.
- 12.5 Results of PBT and vPvB assessment Not determined.
- 12.6 Other adverse effects

This product has no influence on the global warming or the ozone layer depletion.

Section 13: Disposal considerations

<u>Disposal methods for the product</u>: disposal in accordance with applicable regulations. Do not remove with household waste, do not empty into drains. Recycle or reprocess. Waste code should be given at the place of its formation.

Legal basis: Directive 2008/98/EC, European Parliament and Council Directive 94/62/EC.

^{13.1} Waste treatment methods



UN number

14.1

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Section 14: Transport information

14.2 UN proper shipping name Not applicable.
14.3 Transport hazard class(es) Not applicable.
14.4 Packing group Not applicable.
14.5 Environmental hazards Product is not classified as dangerous for the environment in accordance with transport regulations.
14.6 Special precautions for user Not required.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable, product is not classified as hazardous during transport.

Not applicable.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance).

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

Additional information

The product meets the requirements of Regulation 1907/2006/EC (REACH), directive 2002/95/EC (RoHS) and directive 2000/53/EC (vehicle directive).

15.2 Chemical safety assessment

Chemical safety assessment is not required for mixtures.

Section 16: Other information

Full text of indicated H phrases mentioned in section 3

- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H372 Causes damage to organs through prolonged or repeated exposure.



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<u>Trainings</u>

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo proper workplace training.

Explanation of abbreviations and acronyms

| PBT | Persistent, Bioaccumulative and Toxic substance |
|--------------|---|
| vPvB | very Persistent, very Bioaccumulative substance |
| Carc. 2 | Carcinogenicity category 2 |
| Skin Sens. 1 | Skin sensation category 1 |
| STOT RE 1 | Specific target organ toxicity - repeated exposure category 1 |

The product meets the requirements of standards:

| CuZn37Mn3Al2; CW713R; CuZn37Mn3Al2PbSi; | PN-EN 12163, 12164, 12165, 12166, 12167, 12168, |
|---|---|
| CuZn40Al2; | DIN 17660 |
| CW718R; CuZn39Mn1AIPbSi; CW708R; CuZn31Si1; | PN-EN 12163, 12164, 12165, 12166, 12167, 12168, |
| CuZn40Al1, CuZn31Si1 | DIN 17660 |
| CW607N*, CuZn38Pb1 | PN-EN 12163, 12164, 12165, 12166, 12167, 12168 |
| CuZn38Pb1,5 | DIN 17660 |

Other data

Classification was based on physicochemical tests and data on the content of hazardous substances established using calculation method under the guidance of Regulation 1272/2008/EC (CLP).

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Composed by: mgr Monika Gotowalska (on the basis of producer's data).

Safety Data Sheet made by: "THETA" Doradztwo Techniczne

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.