



# Safety Data Sheet

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

Date of issue: 24.07.2015  
Version: 2.0/EN

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

### 1.1 Product identifier

Trade name: TIN BRASS WITH ARSEN  
Type: MC70; CW706R; CuZn28Sn1; C44300; C111; CuZn29Sn1; ŁOMsz-77-2-0,05; C44400

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: alloy used as tubulation of the condensers in power engineering, heat exchangers and installations in thermal power stations, heat exchangers and coolers working in the aquatic environment.

Uses advised against: not determined.

### 1.3 Details of the supplier of the safety 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](mailto:sekretariat@walcownia.com.pl), [www.walcownia.com.pl](http://www.walcownia.com.pl)  
E-mail address for a competent person responsible for msds: [biuro@theta-doradztwo.pl](mailto:biuro@theta-doradztwo.pl)

### 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

Hazard pictograms and signal words

None.

Hazard statements

None.

Precautionary statements

None.

### 2.3 Other hazards

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 [%] |       |         |           |
|---------------------------------------|-------|---------|-----------|
| Cu                                    | Zn    | Sn      | As        |
| 69-73                                 | 25-31 | 0,9-1,5 | 0,02-0,06 |



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## Dangerous components

### Arsenic

|                       |   |
|-----------------------|---|
| Range of percentages: | < 0,1%  |
| CAS number:           | 7440-38-2   |
| EC number:            | 231-148-6   |
| Registration number:  | -   |
| Classification:       | Acute Tox. 3 H331, Acute Tox. 3 H301, Aquatic Acute 1 H400,<br>Aquatic Chronic 1 H410 |

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

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

Skin contact: 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.

Eye contact: 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) with the eyelid hold wide open. Immediately obtain medical attention.

Ingestion: usually exposure in this route is not possible.

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

### 4.2 Most important 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

Suitable extinguishing media: 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 sections  
Appropriate 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:                          | solid          |
| colour:                                  | yellow         |
| odour:                                   | odourless      |
| odour threshold:                         | not determined |
| pH:                                      | not applicable |
| melting point/freezing point:            | 890-980°C      |
| initial boiling point and boiling range: | not determined |
| flash point:                             | not applicable |



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|   |                           |
|---|---------------------------|
| evaporation rate:                             | not determined            |
| flammability (solid, gas):                    | not flammable             |
| upper/lower flammability or explosive limits: | not applicable            |
| vapour pressure:                              | not applicable            |
| relative vapour density:                      | not determined            |
| vapour density:                               | not determined            |
| density:                                      | ca. 8,6 g/cm <sup>3</sup> |
| solubility(ies):                              | insoluble in water        |
| partition coefficient: n-octanol/water:       | not determined            |
| auto-ignition temperature:                    | not applicable            |
| decomposition temperature:                    | not determined            |
| explosive properties:                         | not displayed             |
| oxidising properties:                         | not displayed             |
| kinematic viscosity:                          | not applicable            |

- 9.2 Other information  
No additional data.

## Section 10: Stability and reactivity

### 10.1 Reactivity

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

### 10.2 Chemical stability

Product 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 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.

#### Carcinogenicity

Based on available data, the classification criteria are not met.



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## 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

### 13.1 Waste treatment methods

Disposal methods for the product: 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.

## Section 14: Transport information

### 14.1 UN number

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

### 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.



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## 14.6 Special precautions for user

Not applicable.

## 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

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 (EEC) 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 (End-of life vehicles).

### 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

|      |   |
|------|---|
| H301 | Toxic if swallowed.                                   |
| H331 | Toxic if inhaled.                                     |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |

### Trainings

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 |
| Acute Tox. 3      | Acute Toxicity Category 3                       |
| Aquatic Acute 1   | Aquatic Acute Category 1                        |
| Aquatic Chronic 1 | Aquatic Chronic Category 1                      |

### The product meets the requirements of standards:

|   |                 |                |   |         |                       |
|---|-----------------|----------------|---|---------|-----------------------|
| 1 | CuZn28Sn1       | DIN 17660      | 5 | C 44300 | ASTM B111,ASME SB111. |
| 2 | CZ 111          | BS 2871 PART 3 | 6 | C 44400 | ASTM B111, ASME SB111 |
| 3 | ŁOMsz 70-1-0,05 | GOST 15527     | 7 | MC 70   | PN-H 87025            |
| 4 | CuZn29Sn1       | NF-A 51-102    | 8 | CW 706R | EN12451               |



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## 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.