	<b>SAFETY DATA SHEET</b> In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended	
<b>Alloy Zn-Al (max 0.8% Al)</b>		
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Alloy Zn-Al (max 0.8 % Al)

**Synonyms and trade names:** Zn-Al03, Zn-Al035, Zn-Al04, Zn-Al05, Zn-Al06; Zn-Al07; Zn-Al08, ZZA03, ZZA04; ZZA0,5.

**Chemical name:** Zinc (CAS: 7440-66-6, EC: 231-175-3)

**The registration number:** 01-2119467174-37-0023

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

**Relevant identified uses:** For hot-dip galvanizing.

**Uses advised against:** Not specified.

### 1.3. Details of the supplier of the safety data sheet

**Producer/Distributor:** HUTA CYNKU „Miasteczko Śląskie” S.A.

**Address:** Poland; PL 42-610 Miasteczko Śląskie; 17 Hutnicza street

**Telephone/Fax:** +48 32 2888 444 (dir.) / +48 32 2888 687/885

**E-mail address** of the person responsible for the SDS: hcm@hcm.com.pl

### 1.4. Emergency telephone number

112 (emergency call), 998 (fire brigade), 999 (ambulance)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation 1272/2008/EC:

Aquatic Acute 1; H400

Aquatic Chronic 1; H410

**Hazards to man:** Does not meet the criteria of classification.

**Hazards to environment:** Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**Hazard from physical and chemical properties:** Does not meet the criteria of classification.

In section 16 stated the importance of H-phrases and symbols.

### 2.2. Label elements

#### Label accordance with Regulation 1272/2008/EC (CLP)

##### Hazard pictogram, signal words:

Product form (block) causes that it isn't marked as dangerous.

##### Hazard statements:

The lack of due to product form (block).

##### Precautionary statements:

The lack of due to product form (block).

**The names of hazardous ingredients on the label:** None.

Label elements are permitted to be removed in accordance with Section 1.3.4. of CLP 1272/2008, account of its form in which it is placed on the market.

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**2.3. Other hazards**

No information on meeting the criteria for PBT or vPvB in accordance with Annex XIII of Regulation 1907/2006 (REACH). Tests have not been carried out.

**SECTION 3: Composition/information on ingredients****3.1. Substances**

<b>Substance name:</b>	<b>Zinc powder - zinc dust (stabilised)</b>
<b>Concentration [%]:</b>	≥99.2
<b>CAS Number:</b>	7440-66-6
<b>WE Number:</b>	231-175-3
<b>Index Number:</b>	030-001-01-9
<b>Classification 1272/2008/EC:</b>	Aquatic Acute 1; H400 Aquatic Chronic 1; H410

**Contains:** Aluminum (CAS: 7429-90-5) 0.3-0.8 %.

In section 16 stated the importance of H-phrases and symbols.

**3.2. Mixtures**

Not applicable.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

If omit mechanical hazards due to mass of zinc castings (goose-jumbo of mass 600-1000 kg), zinc in metallic form does not create any hazards at room temperature. Described below, the recommendations apply to work in exposure to vapours, fumes and dust generating during machining and heat-refined zinc.

**Inhalation:** Move affected person from the danger area to fresh air. Keep warm and quiet. In case of alarming symptoms, seek medical advice.

**Skin contact:** Immediately remove contaminated clothing, shoes. Wash contaminated skin with plenty of water with soap and thoroughly rinse with water. In case of alarming symptoms, seek medical advice.

**Eye contact:** Remove any contact lenses. Flush eyes with a plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 10-15 minutes. In case of alarming symptoms, seek medical advice.


**Ingestion:** Rinse mouth with water. If conscious, give plenty of water to drink. If unconscious do not give any of mouth. Do not induce vomiting without the advice of a doctor. Seek medical advice immediately - show this data sheet. Taking into account the form of the product (block) the exposure of the oral route is unlikely. Zinc intake via food may be a consequence of not following basic hygiene when handling the product, such as not washing hands after handling the product, exposure to high concentrations of dust and smoke of the product.

**4.2. Most important symptoms and effects, both acute and delayed**

**Inhalation:** Zinc dust or fumes may cause irritation to the respiratory tract. Inhalation exposure to the fumes of zinc may cause fever of casteries with sweet taste in the mouth, fever, chills, headache, weakness, excessive sweating, strong thirst, leg and chest pain, breathing problems, vomiting.

**Skin contact:** May cause skin irritation. Following prolonged exposure may cause changes in the skin.

**Eye contact:** May cause irritation to the conditions of exposure to fumes and dusts.

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**Ingestion:** Harmful. May cause irritation of the digestive tract with nausea, vomiting, diarrhea, loss of appetite, abdominal pain, fever and chills. May cause disorders of the central and autonomic nervous system with ataxia, drowsiness, impaired coordination, dizziness, irritation, muscles pain. May cause changes in the blood.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

Remove affected person from the environment contaminated by the product. In the event of health problems, consult your doctor or the center of toxicological concern. Provide the information contained in the SDS. If unconscious, do not give anything by mouth.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

**Suitable extinguishing media:** All extinguishing media according to the surroundings. Extinguish small fires with dry powder. Extinguish larger fires with water spray, water fog.

**Unsuitable extinguishing media:** Not specified.

#### **5.2. Special hazards arising from the substance or mixture**

Product in the form of block is not flammable. In case of fire, at a temperature above 420 °C (melting point of zinc), produce dangerous fumes containing toxic and irritating fumes and vapors of zinc, zinc oxide. Do not inhale fumes and gases that produce during the fire.

#### **5.3. Advice for firefighters**

Wear full protective equipment and self-contained breathing apparatus with independent air circulation. Containers exposed to fire or high temperature cool with water and if possible remove from the danger zone. Protect drains, surface waters and soil from pollution. Water from fire treated as hazardous pollution and accumulate in separate containers.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel:** Access of non-emergency personnel to the area of accident should be restricted until the completion of the disposal of the product. Wear appropriate personal protective equipment. Provide adequate ventilation.

**For emergency responders:** Wear appropriate personal protective equipment. Provide adequate ventilation.

#### **6.2. Environmental precautions**


Secure the gullies. Prevent contamination of surface water and ground. In the event of any serious pollution of the environment, notify the appropriate administrative authority, control and rescue services. The used containers should be disposed by delivering to eligible organizations.

#### **6.3. Methods and material for containment and cleaning up**

Collect mechanically. Collected product put in a substitute container and direct to the destruction or re-use.

#### **6.4. Reference to other sections**

Disposal - see Section 13. Personal protective equipment - see Section 8.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Do not eat, drink, smoke or take drugs at work. There are no special recommendations when working with an alloy in the form of block. Avoid generate dust and smoke of product during heat treatment or mechanical. Provide adequate ventilation. Avoid contact with eyes, skin and clothing. Do not breathe dusts and fumes. Wear appropriate personal protective equipment. During work, follow the instructions of use. Wash your hands before break and after working with the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep in properly labelled, factory sealed containers, with a label which complies with current regulations. Do not exceed the maximum unit load storage area. Internal transport using a forklift or crane. Avoid contact with oxidizers, acids, basics, halogenated hydrocarbons. Avoid excessive heat, humidity.

### 7.3. Specific end use(s)

For hot-dip galvanizing.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Not specified.

**Legal basis:** Ordinance on maximum permissible concentration and intensity of harmful factors in the work environment in accordance with national limit values.

[EH40/2005 Workplace exposure limits, fourth edition, published 2020, ISBN 978 0 7176 6733 8.](#)

**Monitoring procedures:** Use methods described in European Standards.

### 8.2. Exposure controls

Mandatory general regulations on occupational health. Do not allow to exceed the normative concentrations of hazardous constituents in the workplace. Ensure adequate ventilation, especially in confined spaces, general and local exhaust. Wash hands and face before break and after working with the product. Do not eat, drink, smoke or take drugs at work. Avoid contact with skin. Avoid eyes contamination. Do not inhale dusts and fumes. Keep away from food.

**Eye / face protection:** Wear suitable protective goggles (accordance with EN 166).

**Skin Protection:** Wear suitable gloves (in accordance with EN 374). The protective properties of gloves depend not only on the type of material they are made of. The time of the protective effect may be different for different glove manufacturers. In the case of many substances it is not possible to accurately estimate the protective time of gloves. Taking into account the parameters specified by the manufacturer of gloves should pay attention while taking the gloves still retain their protective properties. Suitable protective clothing with long sleeves and trousers.

**Respiratory protection:** In conditions of exposure to concentrations exceeding the limit values of TWA, in conditions of exposure to dust, fumes and vapours of the product wear appropriate respiratory protection, for example in case of short-term exposure - filter mask with a suitable absorber or breathing apparatus with independent air supply in case of exposure to high concentration.

**Thermal Hazards:** Usually is not required. During work with hot (molten) product wear suitable gloves and heat-resistant clothes (in accordance with EN 407).

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Used personal protective equipment should meet the requirements of local/regional/national laws. The employer must provide personal protective equipment appropriate to the type of work and in accordance with all requirements, including maintenance and cleaning.

Concentrations of hazardous substances in the workplace should be monitored in accordance with acknowledged test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

**Environmental exposure controls:** The large amount of product should not be allowed to penetrate through the ground water, sewage, waste water or soil.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b><u>Physical state:</u></b>	Solid
<b><u>Colour:</u></b>	Silver-greyish
<b><u>Odour:</u></b>	Odourless
<b><u>Melting point/freezing point:</u></b>	419.5 °C (Zn 99.995 %)
<b><u>Boiling point or initial boiling point and boiling range:</u></b>	907 °C (Zn 99.995 %)
<b><u>Flammability:</u></b>	Not applicable
<b><u>Lower and upper explosion limit:</u></b>	Not applicable
<b><u>Flash point:</u></b>	Not applicable
<b><u>Auto-ignition temperature:</u></b>	Not applicable
<b><u>Decomposition temperature:</u></b>	Not specified
<b><u>pH:</u></b>	Not applicable
<b><u>Kinematic viscosity:</u></b>	Not applicable
<b><u>Solubility:</u></b>	<u>Insoluble in water. Depending on the type and concentration is soluble in acids. Soluble in bases.</u>
<b><u>Partition coefficient n-octanol/water (log value):</u></b>	Not applicable
<b><u>Vapour pressure:</u></b>	Not applicable
<b><u>Density and/or relative density:</u></b>	<u>Density: 7.133 g/cm<sup>3</sup> at 20 °C</u>
<b><u>Relative vapour density:</u></b>	Not applicable
<b><u>Particle characteristics:</u></b>	Not specified

**9.2. Other information**

9.2.1. Information with regard to physical hazard classes  
Not specified.

9.2.2. Other safety characteristics  
Hydrogen is released in reaction with acids or bases.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

May react with oxidizers, acids, basics, halogenated hydrocarbons.

**10.2. Chemical stability**

Stable under normal conditions of storage.

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**10.3. Possibility of hazardous reactions**

In reaction with acids or bases extremely flammable hydrogen is released (H<sub>2</sub>).

**10.4. Conditions to avoid**

Avoid excessive heat, humidity, incompatible materials.

**10.5. Incompatible materials**

Avoid contact with oxidizers, acids, basics, halogenated hydrocarbons.

**10.6. Hazardous decomposition products**

None under normal conditions of use and storage.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**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 sensitization:** 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.

**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.

**11.2. Information on other hazards****11.2.1. Endocrine disrupting properties**

Not specified.

**11.2.2. Other information**

**Zinc** [CAS: 7440-66-6]

**Inhalation:** Zinc dust or fumes may cause irritation to the respiratory tract. Inhalation exposure to the fumes of zinc may cause fever of caveries with sweet taste in the mouth, fever, chills, headache, weakness, excessive sweating, strong thirst, leg and chest pain, breathing problems, vomiting.

**Skin contact:** May cause skin irritation. Following prolonged exposure may cause changes in the skin.

**Eye contact:** May cause irritation to the conditions of exposure to fumes and dusts.

**Ingestion:** Harmful. May cause irritation of the digestive tract with nausea, vomiting, diarrhea, loss of appetite, abdominal pain, fever and chills. May cause disorders of the central and autonomic nervous system with ataxia, drowsiness, impaired coordination, dizziness, irritation, muscles pain. May cause changes in the blood.

**SECTION 12: Ecological information****12.1. Toxicity**

Very toxic to aquatic life with long lasting effects.

According to section 1.3.4 of Regulation 1272/2008, does not meet this threat, account of its form in which it is placed on the market.

**12.2. Persistence and degradability**

Biodegradation is not applicable to metals/inorganic substances.

**12.3. Bioaccumulative potential**

Not specified.

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#### 12.4. Mobility in soil

Not soluble in water, not mobile in soil.

#### 12.5. Results of PBT and vPvB assessment

Not applicable.

#### 12.6. Endocrine disrupting properties

Not specified.

#### 12.7. Other adverse effects

Not specified.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

During removal of waste comply with the regional / national laws.

#### Community legislation:

- Directive **2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.
- European Parliament and Council Directive **94/62/EC** of 20 December 1994 on packaging and packaging waste as amended.

**Disposal methods for the product:** Do not introduce into the environment. Disposal in accordance with the local/national legislation.

**Disposal methods for used packing:** Empty containers give for appropriate rubbish dump or for disposal in accordance with the local/national legislation.

#### Waste code:

**11 05** - Wastes from hot galvanising processes.

**11 05 01** - Hard zinc.

**11 05 02** - Zinc ash.


**17 04** - Metals (including their alloys).

**17 04 04** - Zinc.

### SECTION 14: Transport information

	<u>ADR</u>	<u>RID</u>	<u>AND</u>	<u>IMDG</u>	<u>ICAO TI</u>
<b>14.1. UN number or ID number</b>			None		
<b>14.2. UN proper shipping name</b>			None		
<b>14.3. Transport hazard class(es)</b>			None		
<b>14.4. Packing group</b>			None		
<b>14.5. Environmental hazards</b>			None		
<b>14.6. Special precautions for user</b>	<u>During cargo handling use personal protective equipment - see Section 8.</u>				
<b>14.7. Maritime transport in bulk according to IMO instruments</b>			Not specified		



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## 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, Authorisation 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 as amended.

**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 as amended.

**Commission Regulation (EU) 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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

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

**Commission directive 2000/39/EC** of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Commission directive 2006/15/EC** of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

**Commission directive 2009/161/EU** of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

**Commission directive (EU) 2017/164** of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

**Commission Regulation (EU) 2017/542** of 22 March 2017 amending Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures by adding an Annex on harmonised information relating to emergency health response.

**Regulation (EU) 2016/425 of the European Parliament and of the Council** of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

### 15.2. Chemical safety assessment

The Chemical Safety Assessment has been performed for the mixture.

## SECTION 16: Other information

### The full text of H-statements from Sections 2 and 3:

H400 - Very toxic to aquatic life.


H410 - Very toxic to aquatic life with long lasting effects.

### Key to abbreviations and acronyms:

Aquatic Acute 1 - Hazardous to the aquatic environment - Acute Hazard, Category 1.

Aquatic Chronic 1 - Hazardous to the aquatic environment - Chronic Hazard, Category 1.



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**Training advice:** Before use read the SDS.

**Sources of key data:**

Manufacturer SDS from 4<sup>th</sup> February 2008.

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 also treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above also of improper compliance with the law norms in the field.

Prepared by ISOTOP Consulting Company; [www.isotop.pl](http://www.isotop.pl); e-mail: [reach@isotop.pl](mailto:reach@isotop.pl)

SDS from 18.06.2019 (Version 3) has been revised in sections 2.1, 8.1, 8.2, 9.1, 9.2, 11.1, 11.2, 12.6, 12.7, 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 14.7, 15.1. Changes have been underlined.

This SDS replaces and annuls all the previous versions.