

# HECKMANN BUILDING PRODUCTS INC. – SAFETY DATA SHEET (SDS) POS-I-TIE® BARREL SCREWS

## 1. IDENTIFICATION

Product Identifier: Product name: zinc alloys Die Casting

Synonyms: zinc alloys DC ; alloy 2 ; alloy 5; kayem1; kayem2; ZA-12; ZA-27; ZA-8; zamak 2; zamak 3; zamak 5; zamak KS; zinc alloys for diecasting - galfans; ZL1110; ZL12; ZL-27; ZL2720; ZnAl11Cu1; ZnAl27Cu2; ZnAl4; ZnAl4Cu1; ZnAl4Cu3

Manufacturer: Heckmann Building Products Inc. – 1501 N. 31<sup>st</sup> Avenue, Melrose Park, IL 60160-2911  
Phone and emergency number: 708-865-2403

## 2. HAZARD(S) IDENTIFICATION

### DSD/DPD

Not classified as dangerous according to the criteria of directive(s) 67/548/EEC and/or 1999/45/EC

### Other hazards

The melting down of moist metal leads to explosion risk

Heated product causes burns

! This substance is subject to exposure limits

### CLP

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

### Other hazards

The melting down of moist metal leads to explosion risk

Heated product causes burns

Caution! This substance is subject to exposure limits

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No. EINECS/ELINCS	CONC.	Classification according to DSD/DPD	Classification according to CLP	Note
Zinc/solid	7440-66-6 231-175-3	69.70%≤C≤ 96.10%			(2)
Aluminum	7429-90-5 231-072-3	3.90%≤C≤2 8.00%	F; R11 - 15	Water-react. 2; H261 Flam. Sol. 1; H228	(1)(2)
Copper	7440-50-8 231-159-6	0%≤C<3.90 %			(2)
magnesium	7439-95-4 231-104-6	0.02%≤C<0. 1%	F; R11 - 15	Flam. Sol. 1; H228 Water-react. 2; H261 Self-heat. 1; H251	(1)(2)

(1) For R-phrases and H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

## 4. FIRST-AID MEASURES

**4.1 After inhalation:** After inhalation of fume: Remove the victim into fresh air

Respiratory problems: consult a doctor/medical service

**4.2 Skin contact:** In case of burns: Wash immediately with lots of water (15 minutes)/shower

Remove clothing while washing

Do not tear off solidified product from the skin

Do not remove clothing if it sticks to the skin  
Cover wounds with sterile bandage  
Consult a doctor/medical service  
If burned surface > 10%: take victim to hospital

**4.3 Eye contact:**

Rinse immediately with plenty of water for 15 minutes  
Take victim to an ophthalmologist

**4.4 After ingestion:**

Not applicable

## 5. FIRE-FIGHTING MEASURES

**5.1 Suitable extinguishing media:**

**5.2 Unsuitable extinguishing media:**

If molten: no water

**5.3 Special exposure hazards:**

On burning formation of metallic fumes (zinc oxide)  
On burning formation of metallic fumes (zinc oxide)  
In molten state: violent to explosive reaction with water (moisture)

**5.4 Instructions:**

Dilute toxic gases with water spray  
In case of metal bath fire: add metal blocks  
When cooling/extinguishing: no water in the substance

**5.5 Special protective equipment for fire-fighters:**

Gloves  
Protective clothing  
Heat/fire exposure: compressed air/oxygen apparatus

## 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions:**

See heading 8.2

**6.2 Environmental precautions:**

See heading 13

**6.3 Methods for cleaning up:**

If melted: allow liquid to solidify before taking it up  
Pick-up the material  
Wash clothing and equipment after handling

## 7. HANDLING AND STORAGE

**7.1 Handling:**

Avoid raising dust Observe strict hygiene  
Keep away from naked flames/heat  
On (re)melting down: dry and preheat installation before use  
Add only dry material to the metal bath

**7.2 Storage:**

**Safe storage requirements:**

Store in a dry area Keep at temperature above dew point  
Meet the legal requirements

**Keep away from:** (strong) acids

**7.3 Specific use(s):**

See information supplied by the manufacturer for the identified use(s)

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Exposure limit values:

#### 8.1.1 Occupational exposure:

If limit values are applicable and available these will be listed below.

TLV

Aluminium, - Metal	Short time value	mg/m <sup>3</sup>
	Time-weighted average exposure limit	1 R mg/m <sup>3</sup>
Copper fume,dust & mists, as Cu	Short time value	- (Cu) mg/m <sup>3</sup>
	Time-weighted average exposure limit	2.2fu/1du+a(Cu) mg/m <sup>3</sup>
Zinc oxide	Short time value	10 R mg/m <sup>3</sup>
	Time-weighted average exposure limit	2 R mg/m <sup>3</sup>

#### 8.1.2 Sampling methods:

Product name	Test	Number	Sampling method
Aluminium	NIOSH	7013	filter
Aluminum	OSHA	ID121	
Aluminum (Al)	NIOSH	8310	
Aluminum (as Al), Metal (Respirable Fraction)	OSHA	CSI	
Aluminum (as Al), Metal (Total Dust)	OSHA	CSI	
Aluminum (as Al),	Soluble Salts OSHA	CSI	
Aluminum (Elements)	NIOSH	7300	filter
Aluminum (Elements, aqua regia ashing)	NIOSH	7301	Filter
Aluminum (Elements, hot block/HCl/HNO3 digestion)	NIOSH	7303	filter
Copper	OSHA	ID 121	filter
Copper (CR)	OSHA	ID 125G	filter
Copper (Cu)	NIOSH	8310	
Copper (Elements on wipes)	NIOSH	8005	filter
Copper (Elements)	NIOSH	9102	filter
Copper (Elements, aqua regia ashing)	NIOSH	7300	filter
Copper (Elements, hot block/HCl/HNO3 digestion)	NIOSH	7303	filter
Copper Dust and fume	NIOSH	7029	
Copper Dusts & Mists (as Cu)	OSHA	CSI	
Copper Fume (as Cu)	OSHA	CSI	
Magnesium	OSHA	CSI	
Magnesium	OSHA	ID 121	filter
Magnesium (Elements)	NIOSH	7300	filter
Magnesium (Elements, aqua regia ashing)	NIOSH	7301	filter
Magnesium (Elements, hot block/HCl/HNO3 digestion)	NIOSH	7303	filter
Magnesium (Mg)	NIOSH	8005	

vary depending upon the compound:alumina	NIOSH	8013	filter
Zinc	OSHA	CSI	
Zinc	NIOSH	7030	
Zinc	OSHA	Id 125	
Zinc	OSHA	125G	Filter
Zinc	OSHA	121	Filter
Zinc & Cpds (as Zn)	NIOSH	7030	Filter
Zinc (Elements on wipes)	NIOSH	9102	Filter
Zinc (Elements)	NIOSH	7300	Filter
Zinc (Elements, aqua regia ashing)	NIOSH	7301	filter
Zinc (Elements, hot block/HCl/HNO3 digestion)	NIOSH	7303	filter
Zinc (Zn)	NIOSH	8005	
Zinc (Zn)	NIOSH	8310	
Zinc Oxide	NIOSH	7502	filter

## 8.2 Exposure controls:

### 8.2.1 Occupational exposure controls:

Measure the concentration in the air regularly

Carry operations in the open/under local exhaust/ventilation or with respiratory protection

Personal protective equipment:

#### a) Respiratory protection:

Dust production: dust mask with filter type P2

#### b) Hand protection:

Gloves

On heating: insulated gloves

- leather

#### c) Eye protection:

On (re)melting down: face shield

#### d) Skin protection:

Protective clothing

On (re)melting down: heatproof clothing

Protective clothing against molten metal splash (EN-ISO 9185)

Protective clothing for workers exposed to heat (EN-ISO 11612)

Safety shoes type S3

### 8.2.2 Environmental exposure controls:

See headings 6.2, 6.3 and 13

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 General information:

Physical form: Solid - Metal

Physical state depending on the production process

Odor Odorless

Color Grey

### 9.2 Important health, safety and environmental information:

Boiling point 900-910 °C

Flashpoint Not applicable

Relative density 4-7

Solubility in solvents Soluble in acids

### 9.3 Other information:

Melting point 375-485 °C

## 10. STABILITY AND REACTIVITY

### 10.1 Conditions to avoid:

#### Possible fire hazard

heat sources

#### Stability

Stable under normal conditions

#### Reactions

In molten state: violent to explosive reaction with water (moisture)

Oxidizes slowly in moist air

### 10.2 Materials to avoid:

(strong) acids

### 10.3 Hazardous decomposition products:

Reacts with (some) acids: release of highly flammable gases/vapours (hydrogen)

On burning formation of metallic fumes (zinc oxide)

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute toxicity:

Magnesium LD50 oral (rat) > 2000 mg/kg

### 11.2 Chronic toxicity:

Caution! This substance is subject to exposure limits

The chronic toxicity (carc - mut - reprotox) of the component(s) relates only to the substance in finely divided state and/or in molten state

Contains a substance of group C (MAK-Schwangerschaftsgruppe)

Copper MAK - Schwangerschaft Gruppe C

zinc, solid MAK - Schwangerschaft Gruppe C

aluminium TLV - Carcinogen A4

MAK - Schwangerschaft Gruppe D

### 11.3 Acute effects/symptoms:

#### Inhalation:

AFTER INHALATION OF DUST:

Irritation of the nasal mucous membranes

Dry/sore throat

Coughing

AFTER INHALATION OF FUME:

Feeling of weakness

Metal fume fever

Vomiting

Nausea

#### Skin contact:

IF MELTING:

Burns

#### Eye contact:

IF MELTING:

Burns

#### Ingestion:

Not applicable

### 11.4 Chronic effects:

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity:

### 12.2 Mobility:

Volatile organic compounds (VOC) Not applicable

Solubility in/reaction with water Literature reports: insoluble in water

Substance sinks in water

**12.3 Persistence and degradability:**

BOD20 Not applicable

Biodegradability: not applicable

**12.4 Bioaccumulative potential:**

No bioaccumulation data available

**12.5 Results of PBT assessment:**

Not applicable, based on available data

**12.6 Other adverse effects:** Not dangerous for the ozone layer (1999/45/EC)

## 13. DISPOSAL CONSIDERATIONS

**13.1 Provisions relating to waste:**

Waste material code (Directive 2008/98/EC, decision 2001/118/EC)

11 01 99 : wastes not otherwise specified

Depending on branch of industry and production process, also other EURAL codes may be applicable

Can be considered as non hazardous waste according to Directive 2008/98/EC

**13.2 Disposal methods:**

Recycle/reuse

Remove waste in accordance with local and/or national regulations

Do not discharge into drains or the environment

**13.3 Packaging/Container:**

No available data

## 14. TRANSPORT INFORMATION

**DOT Proper Shipping Name** - Not regulated

**DOT Hazard Classification** - Not regulated

**UN/NA Number** - Not applicable

**DOT Packing Group** - Not applicable

**Labeling Requirements** - Not applicable

**Placards** - Not applicable

**DOT Hazardous Substance** - Not applicable

## 15. REGULATORY INFORMATION

**15.1 EU Legislation: DSD/DPD**

Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

**CLP** Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

## 16. OTHER INFORMATION

17. This SDS covers Heckmann anchors, but does not include chemicals that may be applied by subsequent handlers and/or distributors of this product. This could include a variety of materials including oils, paints, galvanization, etc. that are not included in this SDS. Additionally, specialty orders may require application of coating material not listed in this SDS. SDSs for any Nucor-applied specialty coating will be provided separately. During welding, precautions should be taken for airborne contaminants that may originate from components of the welding rod. Arc or spark generated when welding or burning could be a source of ignition for combustible and/or flammable materials. The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable; however, the information is provided without any representation or warranty, expressed or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and

expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of this product.