

SAFETY DATA SHEET (SDS)

ZAMAC 3 or 5

According to Regulation (EC) 1907/2006 and 453/2010

Version 1.0 - Revision Date 17.09.2012

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Product Identifiers

Product Name: Zamac or Zamak 3 or 5
Chemical name: Not Applicable – Alloy of Zinc, Aluminum, Magnesium, Copper.
CAS Number: Not applicable
Chemical formula: Not applicable
EINECS Number: Not applicable
EC Number: Not applicable
Index Number: Not applicable

This Safety Data Sheet covers the supply of Zamak (Zamac) ingots.

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

Supplier: NUMINOR CHEMICAL INDUSTRIES LTD.

Address: P. O. BOX 92,
MAALOT 24952,
ISRAEL.

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E-Mail: zinc@numinor.com

Web Site: www.numinor.com

Emergency Contact: Mr/ Alan Kantor
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Primary Use: Use in the manufacture zinc casting.

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Classification according to Regulation (EC) 1272/2008 (EU 'CLP' regulation) and **GHS**.

Not Classified

Hazard Statement Codes

Hazard Statements

None

Precautionary Statements

None

Classification according to EU Directive 67/548/EEC

R-Phrase

None

S – Phrase

None

2.2 Label Elements

Labelling according to regulation (EC)1272/2008

None

Labeling according to Directive 67/548

None

Other Hazards

May generate hydrogen in contact with acids or alkalis.

If fumed, fumes may irritate respiratory tract causing coughing, whereas larger doses will give zinc shakes or metal fume fever.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

This material is a an alloy of Zinc, Aluminum, Cupper, Magnesium

CHEMICAL NAME	CAS NUMBER	EC NUMBER	INDEX NUMBER	CONCENTRATION
Zinc	7440-66-6	231-175-3	Not available	>94%
Aluminum	7429-90-5	231-072-3	Not available	<4.3%
Copper	7440-50-8	231-159-6	Not available	<1.25%
Magnesium	7439-95-4	231-104-6	Not available	<0.06%

SECTION 4 - FIRST AID MEASURES

General Advice

Although this material is not classified as hazardous to health, In fire conditions or when molten or fumed, exposure of first aiders should be minimized, particularly inhalation of fumes.

Inhalation

Move person to fresh air. If person experiences irritation or difficulty breathing, or feeling unwell seek medical advice. If not breathing or if breathing is difficult apply artificial respiration

Ingestion

Immediately rinse mouth with water. Give large quantities of water to drink, seek medical advice. If unconscious, never give a person to drink. Do not induce vomiting!

Skin contact

Wash immediately with plenty of water and soap, and then rinse thoroughly with water.

Eye contact

Rinse immediately with clean water for at least 15 minutes. Keep eyelids open. Remove immediately any contact lenses. In case of irritation seek medical advice.

Protection of rescue personnel

Avoid all unnecessary exposure. Use appropriate protection (see Section 9).

4.2 Most important symptoms and effects, both acute and delayed

If fumed - May irritate respiratory tract causing coughing, whereas larger doses will give zinc shakes or metal fume fever.

4.3 Indication of any immediate medical attention and special treatment needed

In case of feeling unwell after inhalation of fumes or dust seek immediately medical advice.

SECTION 5 – FIRE, FIGHTING & EXPLOSION DATA

5.1 Extinguishing media

This material is not combustible. Use extinguishing media based on surrounding materials, but avoid water!

Blanket with Class D dry powder, sand.

5.2 Special hazards arising from the substances or mixture

In fire fumes and oxides of zinc and aluminium may be formed

5.3 Advice for fire fighters

Wear self-contained breathing apparatus.

Prevent fire-fighting water from entering watercourses, drains or the sewage system. (Environmental pollutant).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

This material is not classified as hazardous to health but exposure should be minimised, particularly inhalation of dust and fumes.

Avoid breathing dust. In case of significant airborne dust, wear a particle dust mask: P3, P2 or P1.

Evacuate people from area of spillage.

6.2 Environmental precautions

Do not allow dust to enter sewage system.

Do not allow dust to enter surface water drains

Do not allow dust to enter streams, rivers or any other waterways

Prevent soil contact with dust.

Inform relevant authorities if the material does enter the above systems.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Collect spilled material in dedicated containers.
Re-use/recycling of spilled material is highly recommended.
All contaminated materials from the cleaning-up operation must be disposed of as hazardous waste.
Do not wash residues from spillage to drain with water

6.4 Reference to any other sections:

See section 13 for disposal information

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Dust may be irritating to the skin or eyes by mechanical action. Dust may be irritating to the respiratory system. Minimise dust generation and exposure to dust. See section 8 for details of personal protective equipment.

Keep away from incompatible materials (see section 10.5)

Avoid inhalation of fumes.

Follow good hygiene practices: do not eat, drink or smoke in the workplace. Wash hands after use. Remove contaminated clothing before entering eating and smoking areas.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry place
Keep only in the original packaging or other sealable containers.
Keep away from acids and bases or other incompatible materials.

7.3 Specific end use(s)

None identified

Handling & storing

Good housekeeping - store in a cool dry place - keep containers shut.
Avoid making dust.

Packing Materials

All materials suitable.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 **Control parameters**

Prevent accumulation of fumes

8.2 **Exposure controls**

Prevent inhalation of fumes and dust

Appropriate engineering controls

If the occupational exposure limit is likely to be exceeded use ventilation (natural or forced) or extraction to reduce exposure in case of the formation of dust and fumes.

Personal protective equipment

This material does not have hazardous chemical properties that require the use of specific personal protective equipment.

Normal occupational hygiene practices should be followed to minimise skin contact with the material. This includes the use of gloves and long sleeved clothing to prevent irritation by mechanical action.

To prevent eye irritation wear CEN approved box goggles, it is recommended not to wear contact upon application of the product.

If occupational exposure limits are exceeded use CEN approved dust masks with a filter type P1, P2 or P3. Dust masks must be used properly to be effective. Follow manufacturers instructions and also obtain specialist advice to select the correct filter type.

Occupational Exposure Limits

Engineering measures: Mechanical ventilation is recommended.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemicals properties:**

Appearance:	Blueish grweay metallic soli
Odour:	Odourless.
Odour threshold:	Not applicable
pH:	Not applicable
Melting point:	420 °C.
Boiling point:	907 °C
Flash point:	Not flammable
Evaporation rate:	Not applicable (solid)
Flammability:	Not flammable
Upper/lower flammability	

or explosive limits:	Not flammable
Vapour pressure:	Not applicable (stable solid)
Vapour density:	Not applicable (stable solid)
Relative density;	Not applicable
Bulk density:	7.1 g/cm ³
Solubility in water:	Insoluble
Solubility in other ingredients:	Insoluble
Partition coefficient	
Octanol/water:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature	Over 900 CC may form zinc oxide
Viscosity	Not applicable (solid)
Explosion properties:	Not explosive
Oxidising properties:	Not oxidising.

9.2 **Other information:**

No additional data available

SECTION 10 - STABILITY & REACTIVITY DATA

10.1 **Reactivity**

Heating of the product over 900 °C may generate zinc oxide fumes.

10.2 **Chemical stability**

Stable under normal conditions.

10.3 **Possibility of hazardous reactions**

Contact with acid and alkaline hydroxides may generate potentially explosive hydrogen gas.

10.4 **Conditions to avoid**

Keep away from acids and alkaline hydroxides and other incompatible materials (see 10.5). Prevent contact of fumes with steam

10.5 **Incompatible materials**

Acids, alkaline hydroxides, sulfur, halogens, oxidizing agents, steam in case of fumes.

10.6 **Hazardous decomposition product.**

None.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 *Information on toxicological effects*

Acute toxicity:	No data available
Skin corrosion/irritation:	No data available.
Serious eye damage/ eye irritation:	No data available
Respiratory or skin sensitization:	No data available.
Germ cell mutagenicity:	No data available
Carcinogenicity:	No evidence of carcinogenicity.
Reproductive toxicity:	No evidence of reproductive toxicity.
Specific target organ toxicity:	
– Single exposure:	No data available.
Specific target organ toxicity:	
– Repeated exposure:	No data available.
Aspiration hazard:	No data available.

Not classified as having any of these hazards according to the harmonised classification given in REGULATION (EC) No 1272/2008 and the first ATP.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 *Toxicity*

Zinc in its metallic dust form is insoluble in water, Its processing or extended exposure in aquatic and terrestrial environments may lead to the release of zinc in bioavailable form. This form can be mobile and toxic in aquatic environment of of hard water. pH and dissolved organic carbon content being regulating the factors. It bioaccumulates in both plant and animals in terrestrial and aquatic systems. Zinc is moderately mobile in soils and is dependent on soil conditions, such as cation exchanger capacity, pH redox potential and chemical species in the soil.

12.2 *Persistence and biodegradability*

Data not available.

12.3 *Bioaccumulative potential*

Data not available.

12.4 *Mobility in soil*

Data not available.

12.5 *Results of PBT and vPvB assessment*

Data not available.

12.6 Other adverse effects
No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Recycle, or dispose of as hazardous waste, to be treated in accordance with local regulations.

Packaging

Clean, uncontaminated packaging can be recycled.
Packaging contaminated with the product must be disposed of as hazardous waste or recycled, and be treated according to local regulations

SECTION 14 - TRANSPORT INFORMATION

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code

		ADR/RID	ADNR	ADNR	IATA
14.1	UN number	Not regulated			
14.2	UN proper shipping name	Not regulated			
14.3	Transport hazard class(s)	Not regulated			
14.4	Packing group	Not regulated			
14.5	Environmental hazards	No	No	Marine pollutant, No	No
14.6	Special precautions for user	None identified			
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code				

SECTION 15 – REGULATORY INFORMATION

This Safety Data Sheet has been prepared in accordance with the requirements of regulation (EC) No 1907/2006 as amended by regulation (EU) No 453/2010.
Regulation (EC) 1272/2008 (EU 'CLP' regulation)
Regulation (EC) 790/2009 First Adaptation to Technical Progress (ATP) for CLP regulation
EU Directive 67/548/EEC ('Dangerous Substances Directive')
Regulation (EC) No 1907/2006 ('REACH')
Regulation (EU) No 453/2010.

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

None identified

15.2 Chemical safety assessment

No data available

SECTION 16 - OTHER INFORMATION

New MSDS version 1.0

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Date of Issue: October 2012
Last update: October 2012
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