
SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : ZL2 - ZL3 - ZL5

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

Metal alloy in the form of ingots for industrial applications and productions

Sectors of use:

Industrial Manufacturing (all)[SU3]

Uses advised against

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

RAFFINERIA METALLI RIBOLDI S.R.L.

Via Brescia 75

25065 - Lumezzane (BS)

Tel: 030 871018

email: info@riboldizamak.it

1.4. Emergency telephone number

IPCS: http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/index.html

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

None

Hazard Class and Category Code(s):

Nonhazardous

Hazard statement Code(s):

Nonhazardous

2.2. Label elements

According to Article 23 CLP (d) and section 1.3.4 of Annex I to CLP, metals in massive form and alloys, do not require labeling.

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

During high temperature treatment of the alloys, zinc oxide or zinc oxide can be produced. Metal fumes prolonged inhalation may cause fever inhalation with the typical symptoms of flu.

Zinc fumes can cause local eyelid irritation (over 90 ° C).

The ingestion of zinc dust can cause gastrointestinal disorders.

In dusty or granular form, it is possible for powder to trigger and explode.

Dry dust can be electrostatically charged for swirling movement, pneumatic transport, transfer, etc ...
 Powders are a strong reducing agent and they react violently with oxidizing substances.

SECTION3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

No substance to signal.

| Substance | Concentration | Classification | Index | CAS | EINECS | REACH |
|-----------|---------------|----------------|-------|-----------|------------|-------|
| Zinc | > 50 <= 100% | | | 7440-66-6 | 231-175-3 | |
| Alluminum | > 1 <= 5% | | | 7429-90-5 | 231-072-03 | |
| Copper | > 1 <= 5% | | | 7440-50-8 | 231-159-6 | |

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:

The alloy in massive form does not present inhalation risks

In case dust inhalation during production process, ventilate the area. Immediately remove the patient from the contaminated environment and keep it in a well-ventilated place. In case of illness consult a physician.

Direct contact with skin (of the pure product):

The alloy in massive form, does not present any risk of direct contact with the skin

In the event of dust contact resulting from the workmanship, wash abundantly with soap and water.

Direct contact with eyes (of the pure product):

The alloy in massive form, does not present any risk of direct contact with eyes

Wash immediately and thoroughly with running water for at least 10 minutes.

Ingestion:

The alloy in massive form, does not present any risk of ingestion

In case of ingestion of the dust resulting from the workmanship rinse the mouth. Consult a physician

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

No data available.

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

If irritation persists consult a doctor

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:

Massive alloy is not flammable.

Fine dust from the machining process could be pyrophoric. In case of fire use special powder or anhydrous sand. DO NOT use other extinguishing agents

Extinguishing means to avoid:

Massive alloy is not flammable.

Do not use extinguishing agents other than sand and / or anhydrous powder in the presence of fine dust from the workmanship.

5.2. Special hazards arising from the substance or mixture

Massive alloy is not flammable.

Fine dust resulting from the work is flammable and with substances such as water can give rise to fires or explosions. In the combustion of such dusts, toxic or irritating fumes can be released

5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective suit.

The spray water can be used to protect the people involved in the extinction

You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Wear gloves and protective clothing

6.1.2 For emergency responders:

Wear gloves and protective clothing

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provision of sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

In the event of dust dispersion, use respiratory protective equipment and operate with aspirators

6.2. Environmental precautions

Accidental accidental spills of solid material in massive form, are not possible

In the case of dust waste, collect the dispersed powder in suitable containers.

Avoid dust and aerosol production

Prevent dust from entering sewers or watercourses

Please inform the competent authorities.

Dispose of the residue in accordance with applicable regulations.

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:

Recover the product for reuse, if possible, or the removal.

6.3.2 For cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

At work do not eat or drink.
Use gloves when handling the blades.
Avoid crushing of the limbs and contact with molten material.
Avoid aerosol formation and ensure adequate room ventilation when dust is formed.
At work do not eat or drink.
See also next paragraph 8.

7.2. Conditions for safe storage, including any incompatibilities

Store the alloy in dry places avoiding contact with acids, bases or oxidants

7.3. Specific end use(s)

Industrial Manufacturing (all):
Follow the rules of good hygiene in the workplace.

SECTION8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:

Zinc:

Zinc and inorganic compounds of zinc, inhalable aerosol (as Zn)
Germany (DFG)
TLV (8 hours): 2 mg / m³ (inhalable fraction)
TLV - Short term (15 min.): 4 mg / m³ (inhalable fraction)
TLV (8 hours): 0.1 mg / m³ (respirable fraction)
TLV - Short term (15 min.): 0.4 mg / m³ (respirable fraction)

Alluminum:

metallic aluminum

Germany (DFG)

TLV (8 hours): 4 mg / m³ (inhalable aerosol)
TLV (8 hours): 1.5 mg / m³ (respirable aerosol)

Aluminum metal and insoluble compounds: TWA 1 mg / m³ (ACGIH 2011)

Copper:

Copper and inorganic copper (inhalable)

Germany (DFG):

TLV - 8 hours: 0.01 mg / m³ (respirable fraction)
TLV - Short term (15 min.): 0.02 (respirable fraction)

Copper - Frequency: TWA 0.2 mg / m³ (ACGIH 2011)

Copper - dusts and mists (as Cu): TWA: 1 mg / m³ (ACGIH 2011)

8.2. Exposure controls

Appropriate engineering controls:

Industrial Manufacturing (all):

Well ventilated environment. Observe the safety measures used in handling chemicals.



Individual protection measures:

a) Eye / face protection

When handling the pure product use safety glasses (spectacles cage) (EN 166).

b) Skin protection

i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

ii) Other

When handling the pure product wear full protective skin clothing.

c) Respiratory protection

Not necessary if you manipulate the alloy in massive form.

In the case of dust formation during work, use mask with filter for dust and smoke exposure type FFP3 (EN149)

d) Thermal hazards

No hazard to report

Environmental exposure controls:

Use according to good working practices to avoid pollution into the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical and chemical properties | Value | Determination method |
|--|----------------|----------------------|
| Appearance | Gray metal | |
| Odour | None | |
| Odour threshold | Not determined | |
| pH | Not determined | |
| Melting point/freezing point | 379 - 389 °C | |
| Initial boiling point and boiling range | Not determined | |
| Flash point | Irrelevant | |
| Evaporation rate | Irrelevant | |
| Flammability (solid, gas) | No | |
| Upper/lower flammability or explosive limits | Irrelevant | |
| Vapour pressure | Irrelevant | |
| Vapour density | Irrelevant | |
| Relative density | 6,7 g/cm3 | |
| Solubility | Insolubile | |
| Water solubility | Insolubile | |
| Partition coefficient: n-octanol/water | Irrelevant | |
| Auto-ignition temperature | Not determined | |
| Decomposition temperature | Not determined | |
| Viscosity | Irrelevant | |
| Explosive properties | No | |
| Oxidising properties | Undefined | |

9.2. Other information

No data available.

SECTION10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

The massive product is stable and does not decompose.

In case of dust formation during work, avoid contact with water or very humid environments

10.3. Possibility of hazardous reactions

Poison fumes may form for heating.

Powders resulting from machining are a strong reducing agent and react violently with oxidizing agents.

The product reacts violently with water, with acids and bases forming inflammatory / explosive gases.

Powders react violently with sulphides, halogenated hydrocarbons with possible risk of fire / explosion

10.4. Conditions to avoid

Contact with water, acids, bases and strongly oxidising substances

10.5. Incompatible materials

It can generate flammable gases in contact with mineral acids.

It can ignite in contact with mineral acids, composed azotic, di azotic and idrazine, alogenated organic substances, strong oxidants agents.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

11.1. Information on toxicological effects

ATE(mix) oral = ∞

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: based on available data, the classification criteria are not met.

(b) skin corrosion/irritation based on available data, the classification criteria are not met.

(c) serious eye damage/irritation: based on available data, the classification criteria are not met.

(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.

(e) germ cell mutagenicity: based on available data, the classification criteria are not met.

(f) carcinogenicity: based on available data, the classification criteria are not met.

(g) reproductive toxicity: based on available data, the classification criteria are not met.

(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.

(i) specific target organ toxicity (STOT) repeated exposure: based on available data, the classification criteria are not met.

(j) aspiration hazard: based on available data, the classification criteria are not met.

SECTION12. Ecological information

12.1. Toxicity

Relate to substances

Zinc:

Algae IC50 (72h): 4 * -19 mg / l

Daphnia Magna: EC50 (48h): 10 * -31 mg / l

Fish: LC50 (96h):> 100 mg / l

* Limit case: Saturation hypothesis, rather than relative solubility

Aluminum:

Algae OECD TG 201:> 100 mg / l (Selenastrum Capricornutum)

Daphnia Magna: OECD TG 202:> 100 mg / l

Fish: OECD TG 203:> 100 mg / l (Trout salmonata)

12.2. Persistence and degradability

The product is not degradable.

12.3. Bioaccumulative potential

The product is not bioaccumulable.

12.4. Mobility in soil

The product is not mobile under normal environmental conditions

12.5. Results of PBT and vPvB assessment

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. Other adverse effects

No adverse effects

SECTION13. Disposal considerations

13.1. Waste treatment methods

Recover or recycle if possible.

Dispose according to local, national and local regulations.

SECTION14. Transport information

14.1. UN number

Not included in the scope of application regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

14.2. UN proper shipping name

None

14.3. Transport hazard class(es)

None

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

No data available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk

SECTION 15. Regulatory information

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

Reg (EC) n. 1907/2006 (REACH), Reg (EC) n. 1272/2008 (CLP), Reg (EC) n. 453/2010 (Requirements for the compilation of safety data sheets), Reg (E) n.790/2009, Dir 96/82/EC as amended.

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Classification based on data of all mixture components

Regulatory information:
Dir 67/548 29° Amendment
Dir 1999/45/EC e s.a.a.
Dir 2001/60/EC
Reg 1907/2006 EC
Reg 1272/2008 EC
Reg 453/2010 EC

NOTICE TO USERS

The information contained in this sheet are based on the knowledge available at the date of the preparation of this sheet.

The user must be aware of the possible risks associated with the use of the product, other than that for which the product is supplied. The sheet does not exonerate the user from knowing and applying all the regulations governing its activities. The set of regulations mentioned is simply to help the user to fulfill its obligations regarding the use of hazardous products.

This sheet does not exonerate the user from other legal obligations than those mentioned and from rules regulating possession and use of the product, since the user is the only responsible.

*** This sheet supersedes all previous editions.
