SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Ingots of Aluminium alloys with > 0.3% lead

Product Specification Number + Product Code:

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

No further relevant information available.

Application of the substance / the mixture: Alloy

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Leichtmetall Aluminium Giesserei Hannover GmbH
Göttinger Chaussee 12-14
D-30453 Hannover
Tel: +49 (0) 511-89878-393
www.leichtmetall.eu

Informing department:
Email: Birgit.Brod@leichtmetall.eu
Tel: +49 (0) 511-89878-351

1.4 Emergency telephone number:
Phone +49 (0) 511-89878-351
(Office hours 8:00 - 16:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS08 health hazard

Repr. 1A H360FD-H362 May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

STOT RE 2 H373 May cause damage to the central nervous system, the liver and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.
**Trade name:** Ingots of Aluminium alloys with > 0,3 % lead

**Hazard pictograms**

- GHS08

**Signal word** Danger

**Hazard-determining components of labelling:**
- lead, massive

**Hazard statements**
- H360F-D - H362 May damage fertility. May damage the unborn child. May cause harm to breast-fed children.
- H373 May cause damage to the central nervous system, the liver and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.
- H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**
- P201 Obtain special instructions before use.
- P260 Do not breathe dust.
- P280 Wear protective gloves / eye protection.
- P308+P311 IF exposed or concerned: Call a doctor.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Additional information:**
Metals in massive form and alloys do not require labelling, if they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market.

Contains nickel. May produce an allergic reaction.

Restricted to professional users.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

**3.2 Chemical characterisation: Mixtures**

**Description:** Metal alloy.

**Dangerous components:**

<table>
<thead>
<tr>
<th>CAS: 7440-50-8</th>
<th>copper</th>
<th>substance with a Community workplace exposure limit</th>
<th>2.5 - 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-159-6</td>
<td>Reg.nr.: 01-2119480154-42-X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7439-95-4</th>
<th>magnesium powder (pyrophoric)</th>
<th></th>
<th>≥ 0.1 - &lt; 2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-104-6</td>
<td>Reg.nr.: 01-21119537203-49-X</td>
<td>Pyr. Sol. 1; H250; Wall-water-react. 1; H260</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7439-92-1</th>
<th>lead, massive</th>
<th></th>
<th>≥ 0.1 - &lt; 2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-100-4</td>
<td>Reg.nr.: 01-2119513221-59-X</td>
<td>Repr. 1A, H360F-D-H362; STOT RE 1, H372</td>
<td></td>
</tr>
</tbody>
</table>

| CAS: 7439-96-5 | manganese | substance with a Community workplace exposure limit | ≥ 0.1 - ≤ 1% |
|-----------------|-------------------------------------------------|--------------|
| EINECS: 231-105-1 | Reg.nr.: 01-2119529243-45-X | | |

(Contd. on page 3)
**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
  - **After inhalation**
    Inhalation is not considered to be a primary exposure pathway, so the measures mentioned below are of a general nature.
    Supply fresh air; consult doctor in case of symptoms.
  - **After skin contact**
    The product is not skin irritating.
  - **After eye contact**
    Due to consistence and application method of the product an eye contact is not expected at normal cases.
    Do not rub eyes dry, the mechanical stress can cause additional cornea damages.
    Wash with tepid water. If symptoms persist, consult a doctor.
  - **After swallowing**
    Swallowing is not considered to be a possible way of exposure.

- **4.2 Most important symptoms and effects, both acute and delayed**
  Accumulates in tissue and organs.

- **4.3 Indication of any immediate medical attention and special treatment needed**
  No further relevant information available.

---

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents**
    The product itself does not burn.
    Use fire fighting measures that suit the environment.
  - **For safety reasons unsuitable extinguishing agents**
    None known.
  - **5.2 Special hazards arising from the substance or mixture**
    Can be released in case of fire:
    - Metal oxides

- **5.3 Advice for firefighters**
  - **Protective equipment**: Wear self-contained breathing apparatus.
  - **Additional information**
    Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

---

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Not required.
- **6.2 Environmental precautions:**
  Gather mechanically and reuse, if possible.
  Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
  Collect mechanically.
  Avoid dust generation.
- **6.4 Reference to other sections**
  See Section 7 for information on safe handling
  See Section 8 for information on personal protection equipment.
Trade name: Ingots of Aluminium alloys with > 0.3 % lead

See Section 13 for information on disposal.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**
  Provide suction extractors if dust is formed.
  Any deposit of dust which cannot be avoided must be removed regularly.
  Avoid direct contact with eyes, skin and clothing.

- **Information about protection against explosions and fires:** The product is not flammable

- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**
  - **Requirements to be met by storerooms and containers:** No special requirements.
  - **Information about storage in one common storage facility:**
    - Do not store together with alkalis (caustic solutions).
    - Store away from oxidising agents.
  - **Further information about storage conditions:** Store under dry conditions.

- **7.3 Specific end use(s)**
  No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **8.1 Control parameters**
  - **Components with limit values that require monitoring at the workplace:**


<table>
<thead>
<tr>
<th>Chemical</th>
<th>WEL (Great Britain)</th>
<th>Short-term: 2** mg/m³</th>
<th>Long-term: 0.2* 1** mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8 copper</td>
<td>WEL (Great Britain)</td>
<td>Short-term: 2** mg/m³</td>
<td>Long-term: 0.2* 1** mg/m³</td>
</tr>
<tr>
<td></td>
<td>*fume **dusts and mists (as Cu)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7439-92-1 lead, massive</td>
<td>BOELV (European Union)</td>
<td>Long-term value: 0.15 mg/m³ as Pb</td>
<td></td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
<td>WEL (Great Britain)</td>
<td>Long-term value: 0.5 mg/m³ as Mn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IOELV (European Union)</td>
<td>Long-term value: 0.2* 0.05** mg/m³ as Mn; *inhalable, **respirable fraction</td>
<td></td>
</tr>
<tr>
<td>7440-02-0 nickel</td>
<td>WEL (Great Britain)</td>
<td>Long-term value: 0.5 mg/m³ as Ni; Sk; Carc</td>
<td></td>
</tr>
</tbody>
</table>

- **DNELs**


<table>
<thead>
<tr>
<th>Chemical</th>
<th>Oral DNEL (consumer, long-term, systemic)</th>
<th>0.83 mg/kg bw/day (human)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-66-6 zinc powder</td>
<td>Zinc dust (pyrophoric)</td>
<td>DNEL (consumer, long-term, systemic)</td>
</tr>
<tr>
<td>Oral DNEL (worker, long-term, systemic)</td>
<td>DNEL (consumer, long-term, systemic)</td>
<td>83 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Dermal DNEL (consumer, long-term, systemic)</td>
<td>DNEL (worker, long-term, systemic)</td>
<td>5 mg/m³ (human)</td>
</tr>
<tr>
<td>Inhalative DNEL (worker, long-term, systemic)</td>
<td>DNEL (consumer, long-term, systemic)</td>
<td>2.5 mg/m³ (human)</td>
</tr>
</tbody>
</table>

- **PNECs**


<table>
<thead>
<tr>
<th>Chemical</th>
<th>PNEC aqua (freshwater)</th>
<th>0.00065 mg/L (.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7439-92-1 lead (&lt; 1 mm)</td>
<td>PNEC aqua (marine water)</td>
<td>0.00034 mg/L (.)</td>
</tr>
<tr>
<td>PNEC STP</td>
<td>0.1 mg/L (.)</td>
<td>(Contd. on page 5)</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

- Personal protective equipment
- General protective and hygienic measures
  - Do not inhale dust / smoke / mist.
  - Wash hands during breaks and at the end of the work.

Breathing equipment:
Approved dust respirators must be used for dusty conditions or if dust levels exceed established standards.

- Protection of hands: Not required.
- Material of gloves: Not required.
- Penetration time of glove material
  - The decision in favour of a specific glove material is governed by protection against mechanical injuries.
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Where dusting potential exist, goggles should be worn.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- General Information
- Appearance:
  - Form: Solid material.
  - Colour: Grey
  - Odour: odourless
  - Odour threshold: Not determined.
- pH-value: Not applicable.
- Change in condition:
  - Melting point/freezing point: Not determined
  - Initial boiling point and boiling range: Not determined
- Flash point: Not applicable
- inflammability (solid, gaseous): Not determined
- Decomposition temperature: Not determined
- Self-inflammability: Product is not selfigniting.
- Explosive properties:
  - Product is not explosive.
- Critical values for explosion:
  - Lower: Not determined.
Trade name: Ingots of Aluminium alloys with > 0,3 % lead

Upper:
- Not determined.
- Vapour pressure: Not applicable.
- Density
  - Vapour density: Not determined
  - Evaporation rate: Not applicable.
- Solubility in / Miscibility with Water: Insoluble
- Solvent content:
  - Organic solvents: VOC EU 0 %
- Solids content: 100 %
- 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity
- 10.1 Reactivity: No further relevant information available.
- 10.2 Chemical stability:
  - Thermal decomposition / conditions to be avoided:
    No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions: No dangerous reactions known
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: Avoid contact with strong oxidizing agents.
- 10.6 Hazardous decomposition products: None in case of intended use and storage in compliance with instructions.

SECTION 11: Toxicological information
- 11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.
  - LD/LC50 values that are relevant for classification:
    7439-92-1 lead (< 1 mm)
    - Oral LD50 > 5000 mg/kg (rat) (OECD 401)
    - Dermal LD50 > 2000 mg/kg (rat) (OECD 402)
    - Inhalative LC50 > 5.05 mg/l/4h (rat) (OECD 403)

    7440-66-6 zinc powder -zinc dust (pyrophoric)
    - Oral LD50 > 2000 mg/kg (rat) (OECD 401)
    - Inhalative LC50 > 5.4 mg/l/4h (rat) (OECD 403)
- Primary irritant effect:
  - 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.
- Repeated dose toxicity
  7439-92-1 lead (< 1 mm)
  - Oral NOAEL (90d) 0.0015 mg/kg bw/day (rat)
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Repro. 1A
  - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
  - Carcinogenicity: Based on available data, the classification criteria are not met.

(Contd. on page 7)
Trade name: Ingots of Aluminium alloys with > 0,3 % lead

- Reproductive toxicity
  May damage fertility. May damage the unborn child. May cause harm to breast-fed children.
- STOT-single exposure
  Based on available data, the classification criteria are not met.
- STOT-repeated exposure
  May cause damage to the central nervous system, the liver and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.
- Aspiration hazard
  Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity

  **Aquatic toxicity:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC50 (static)</th>
<th>LC50 (static)</th>
<th>NOEC (static)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7439-92-1 lead (&lt; 1 mm)</td>
<td>0.596 mg/l/48h (Ceriodaphnia dubia)</td>
<td>1.17 mg/l/96h (Oncorhynchus mykiss)</td>
<td>0.00227 mg/l/96h (Skeletonema costatum) (ASTM E1218)</td>
</tr>
<tr>
<td>7440-66-6 zinc powder - zinc dust (pyrophoric)</td>
<td>1.833 mg/l/48h (Daphnia magna) (OECD 202)</td>
<td>0.439 mg/l/96h (Cottus bairdii)</td>
<td>0.05 mg/l/72h (Pseudokirchneriella subcapitata) (OECD 201)</td>
</tr>
</tbody>
</table>

- 12.2 Persistence and degradability
  Based on previous experience, this product is inert and non-degradable.
- 12.3 Bioaccumulative potential
  No further relevant information available.
- 12.4 Mobility in soil
  No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
    Do not allow product to reach ground water, water bodies or sewage system.
    Danger to drinking water if even small quantities leak into soil.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- 12.6 Other adverse effects
  No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation
    The waste code numbers mentioned are recommendations based on the probable use of the product.

  **European waste catalogue**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 00 00</td>
<td>WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS</td>
</tr>
<tr>
<td>12 01 00</td>
<td>wastes from shaping and physical and mechanical surface treatment of metals and plastics</td>
</tr>
<tr>
<td>12 01 04</td>
<td>non-ferrous metal dust and particles</td>
</tr>
<tr>
<td>12 00 00</td>
<td>WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS</td>
</tr>
<tr>
<td>12 01 00</td>
<td>wastes from shaping and physical and mechanical surface treatment of metals and plastics</td>
</tr>
</tbody>
</table>
Safety data sheet
according to 1907/2006/EC, Article 31


Trade name: Ingots of Aluminium alloys with > 0,3 % lead

(Contd. from page 7)

12 01 03 non-ferrous metal filings and turnings

· Uncleaned packagings:
  · Recommendation:
    Non contaminated packagings can be reused.
    Cardboard packaging can be recycled materially.

SECTION 14: Transport information

· 14.1 UN-Number
  · ADR, ADN, IMDG, IATA Void

· 14.2 UN proper shipping name
  · ADR, ADN, IMDG, IATA Void

· 14.3 Transport hazard class(es)
  · ADR, ADN, IMDG, IATA
  · Class Void

· 14.4 Packing group
  · ADR, IMDG, IATA Void

· 14.5 Environmental hazards:
  · Marine pollutant: No

· 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.

· Transport/Additional information:
  Not dangerous according to the above specifications.

· UN "Model Regulation": Void

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  · Directive 2012/18/EU
  · Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations
  · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57
  None of the ingredients is contained.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases
  H250 Catches fire spontaneously if exposed to air.
  H260 In contact with water releases flammable gases which may ignite spontaneously.
  H317 May cause an allergic skin reaction.

(Contd. on page 9)
Trade name: Ingots of Aluminium alloys with > 0,3 % lead

H351  Suspected of causing cancer. Route of exposure: Inhalation.
H360FD  May damage fertility. May damage the unborn child.
H362  May cause harm to breast-fed children.
H372  Causes damage to organs through prolonged or repeated exposure.
H400  Very toxic to aquatic life.
H410  Very toxic to aquatic life with long lasting effects.

* Department issuing data specification sheet:
This Material Safety Data Sheet has been drawn up in cooperation with:
DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,
phone: (+49) 511 42079 - 0, reach@dekra.com.
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by DEKRA Assurance Services GmbH.

* Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the
International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Pyr. Sol. 1: Pyrophoric solids – Category 1
Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
Repr. 1A: Reproductive toxicity – Category 1A
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.