



Safety data sheet

according to 1907/2006/EC, Article 31

speira

Printing date: 17.11.2022

Version number: 1.0

Revision: 16.11.2022

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

1.1 Product identifier:

Trade name: Reference Material Aluminium Alloy

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

No further relevant information available.

Application of the substance / the preparation: Reference Material Aluminium alloys.

1.3 Details of the supplier of the safety data sheet:

Manufacturer/Supplier:

Speira GmbH
 Research & Development Bonn
 Georg-von-Boeselager-Str. 21
 53117 Bonn, Germany
 Tel.: +49 228/552-02

Further information obtainable from:

HSSE (Health Safety Security Environment)

Tel.: +49 228/552-2166

QM.Bonn@speira.com

1.4 Emergency telephone number: +49 228/552-2166 (Mo-Fr 8:00-16:00)

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:

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

The product is not classified, according to the CLP regulation.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008: Void

Hazard pictograms: Void

Signal word: Void

Hazard statements: Void

Additional information:

Metals in massive form, alloys, mixtures containing polymers and mixtures containing elastomers do not require a label according to this Annex, 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, although classified as hazardous in accordance with the criteria of this Annex. (Regulation (EC) No 1272/2008, Annex I, 1.3.4.1.)

EUH208 Contains nickel. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

2.3 Other hazards:

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients:

3.2 Mixtures:

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 7429-90-5	aluminium	50-100%
EINECS: 231-072-3	substance with a Community workplace exposure limit	
CAS: 7440-21-3	silicon	>10-≤25%
EINECS: 231-130-8	substance with a Community workplace exposure limit	

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CAS: 7440-50-8	copper	≤10%
EINECS: 231-159-6	substance with a Community workplace exposure limit	
CAS: 7440-31-5	tin	≤10%
EINECS: 231-141-8	substance with a Community workplace exposure limit	
CAS: 7440-47-3	chromium	≤10%
EINECS: 231-157-5	substance with a Community workplace exposure limit	
CAS: 7439-96-5	manganese	≤2.5%
EINECS: 231-105-1	substance with a Community workplace exposure limit	
CAS: 7440-02-0	nickel	<1%
EINECS: 231-111-4	☠ Carc. 2, H351; STOT RE 1, H372; ☠ Skin Sens. 1, H317; Aquatic Chronic 3, H412	
CAS: 7439-92-1	lead	<0.3%
EINECS: 231-100-4	☠ Repr. 1A, H360FD-H362	
CAS: 7440-24-6	strontium	<0.3%
EINECS: 231-133-4	☠ Water-react. 3, H261; ☠ Repr. 1A, H360D; ☠ Skin Corr. 1, H314; Eye Dam. 1, H318, EUH029	

SVHC:

7439-92-1 lead

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures:

4.1 Description of first aid measures:

General information:

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

After inhalation: Supply fresh air.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.

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

No further relevant information available.

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: Special powder for metal fires. Do not use water.**For safety reasons unsuitable extinguishing agents:** Water**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.

5.3 Advice for firefighters:

Protective equipment:

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures: Wear protective clothing.**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

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6.4 Reference to other sections:

See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage:
7.1 Precautions for safe handling: No special precautions are necessary if used correctly.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Store in dry conditions.**7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection:
8.1 Control parameters:**Ingredients with limit values that require monitoring at the workplace:****7429-90-5 aluminium**OEL Long-term value: 1* mg/m³

*metal, respirable fraction

7440-21-3 siliconOEL Long-term value: 10* 4** mg/m³

*total inhalable **respirable dust

7440-50-8 copperOEL Long-term value: 0.2* 1** mg/m³

*fume **dusts and mists

7440-31-5 tinOEL Short-term value: 0.2** mg/m³Long-term value: 2* 0.1** mg/m³

IOELV, *metal, oxide, inorg.compds., **org. compds.

7440-47-3 chromiumOEL Long-term value: 2 mg/m³

IOELV

7439-96-5 manganeseOEL Short-term value: 3* mg/m³Long-term value: 0.2(l) 0.05(R) 0.02(R)* mg/m³

IOELV; *fume

7440-02-0 nickelOEL Long-term value: 0.5 mg/m³

Sens

7439-92-1 leadOEL Long-term value: 0.15 mg/m³

Repr1A, BOELV

8.2 Exposure controls:**Appropriate engineering controls:** No further data; see item 7.

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Individual protection measures, such as personal protective equipment:**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Respiratory protection: Not necessary if room is well-ventilated.

Hand protection:

No chemical-protective gloves required.

Tuning for working conditions.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection:

Safety glasses recommended.

Tuning for working conditions.

SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties:**General Information:**

Physical state:	Solid
Colour:	Silver grey
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	650 - 700 °C
Boiling point or initial boiling point and boiling range:	Undetermined.
Flammability:	Not determined.
Lower and upper explosion limit:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH:	Not applicable.
Viscosity:	
Kinematic viscosity:	Not applicable.
Dynamic:	Not applicable.
Solubility:	
water:	Insoluble.
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	Not applicable.
Density and/or relative density:	
Density at 20 °C:	2.7 g/cm ³
Relative density:	Not determined.
Vapour density:	Not applicable.
Particle characteristics:	See item 3.

9.2 Other information:**Appearance:**

Form: Solid

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Important information on protection of health and environment, and on safety.:

Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	
Solids content:	100.0 %
Change in condition:	
Evaporation rate:	Not applicable.

Information with regard to physical hazard classes:

Explosives:	Void
Flammable gases:	Void
Aerosols:	Void
Oxidising gases:	Void
Gases under pressure:	Void
Flammable liquids:	Void
Flammable solids:	Void
Self-reactive substances and mixtures:	Void
Pyrophoric liquids:	Void
Pyrophoric solids:	Void
Self-heating substances and mixtures:	Void
Substances and mixtures, which emit flammable gases in contact with water:	Void
Oxidising liquids:	Void
Oxidising solids:	Void
Organic peroxides:	Void
Corrosive to metals:	Void
Desensitised explosives:	Void

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 and stored according to specifications.

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: No further relevant information available.

10.6 Hazardous decomposition products: No dangerous decomposition products known.

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 sensitisation: 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.

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Aspiration hazard: Based on available data, the classification criteria are not met.**11.2 Information on other hazards:****Endocrine disrupting properties:**

None of the ingredients is listed.

SECTION 12: Ecological information:

12.1 Toxicity:**Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties:**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects:**Additional ecological information:****General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

SECTION 13: Disposal considerations:

13.1 Waste treatment methods:**European waste catalogue:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information:

14.1 UN number or ID number:

ADR, IMDG, IATA

Void

14.2 UN proper shipping name:

ADR

Void

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:

Not applicable.

14.6 Special precautions for user:

Not applicable.

14.7 Maritime transport in bulk according to IMO

instruments:

Not applicable.

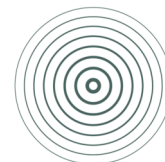
UN "Model Regulation":

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.

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REGULATION (EC) No 1907/2006 ANNEX XVII: Conditions of restriction: 27, 63, 72**Regulation (EU) No 649/2012:**

7439-92-1 lead: Annex I Part 1

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II:

7439-92-1 lead

REGULATION (EU) 2019/1148:**Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)):**

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS:

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors:

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors:

None of the ingredients is listed.

National regulations:**Other regulations, limitations and prohibitive regulations:****Substances of very high concern (SVHC) according to REACH, Article 57:**

7439-92-1 lead

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

SECTION 16: Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

- H261 In contact with water releases flammable gases.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H351 Suspected of causing cancer.
- H360D May damage the unborn child.
- 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.
- H412 Harmful to aquatic life with long lasting effects.
- EUH029 Contact with water liberates toxic gas.

Department issuing SDS:

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Contact: Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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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)
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Water-react. 3: Substances and mixtures which in contact with water emit flammable gases – Category 3
Skin Corr. 1: Skin corrosion/irritation – Category 1
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
Repr. 1A: Reproductive toxicity – Category 1A
Repr. 1A: Reproductive toxicity – Category 1A
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
