



Cu-Al Alloys

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 15/01/2018 Revision date: 09/01/2018 Supersedes: 19/09/2014 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Name : Cu-Al Alloys
Type of product : Alloy

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Rods, plates and ingots
Intermediate for copper alloy castings.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ALEACIONES, PREALEACIONES Y DESOXIDANTES, SL
P.I. Pla de Llerona, Carrer Luxemburgs/n
08520 Les Franqueses del Vallès - Spain
T (+34) 93 840 49 95 - F (+34) 93 840 49 96
info@apd-fundicion.com

1.4. Emergency telephone number

Emergency number : (+34) 93 840 49 95
Office hours

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

PBT: not yet assessed

vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Copper (powder/dust, > 10µm and <1 mm)	(CAS-No.) 7440-50-8 (EC-No.) 231-159-6	72 - 91,5	Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Aluminium (powder stabilised)	(CAS-No.) 7429-90-5 (EC-No.) 231-072-3;231-072-3b (EC Index-No.) 013-002-00-1	8,2 - 12	Water-react. 2, H261 Flam. Sol. 1, H228

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Nickel (powder <1mm)	(CAS-No.) 7440-02-0 (EC-No.) 231-111-4 (EC Index-No.) 028-002-00-7	<= 7,5	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 3, H412
Manganese substance with a Community workplace exposure limit	(CAS-No.) 7439-96-5 (EC-No.) 231-105-1	<= 2,5	Not classified

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Brush off loose particles from skin. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects	: Inhalation of fumes may cause metal fume fever. Heated product causes burns.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder.
Unsuitable extinguishing media	: Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: In molten state: reacts violently with water (moisture).
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5.3. Advice for firefighters

Precautionary measures fire	: Exercise caution when fighting any chemical fire.
Firefighting instructions	: Exercise caution when fighting any chemical fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Take care while working with the hot material.
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6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: On land, sweep or shovel into suitable containers. Collect the hardened product as any solid. Store away from other materials.
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6.4. Reference to other sections

See Heading 8. Exposure controls/personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid breathing fume. Upon heating, toxic fumes are formed. Provide local exhaust or general room ventilation.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, well-ventilated place. Store in a dry place. Protect from moisture.
 Incompatible products : Strong bases. Strong acids.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Copper (powder/dust, > 10µm and <1 mm) (7440-50-8)		
EU	Local name	Copper
EU	IOELV TWA (mg/m³)	0,01 mg/m³ (respirable fraction)
EU	Notes	SCOEL Recommendations (2014)
United Kingdom	Local name	Copper
United Kingdom	WEL TWA (mg/m³)	0,2 mg/m³ fume (as Cu) 0,2 mg/m³ fume (as Cu) 1 mg/m³ and compounds, dusts and mists (as Cu)
United Kingdom	WEL STEL (mg/m³)	2 mg/m³ and compounds, dusts and mists (as Cu)
Nickel (powder <1mm) (7440-02-0)		
EU	Local name	Nickel metal
EU	IOELV TWA (mg/m³)	0,005 mg/m³ (respirable fraction) 0,01 mg/m³ (inhalable fraction)
EU	Notes	SCOEL Recommendations (2011)
United Kingdom	Local name	Nickel
United Kingdom	WEL TWA (mg/m³)	0,1 mg/m³ and its inorganic compounds (except nickel tetracarbonyl), water-soluble nickel compounds (as Ni) 0,5 mg/m³ and its inorganic compounds (except nickel tetracarbonyl), nickel and water insoluble nickel compounds (as Ni)
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity), Carc (nickel oxides and sulphides)(Capable of causing cancer and/or heritable genetic damage. See paragraphs 49–51), Sen (nickel sulphate)(Capable of causing occupational asthma. See paragraphs 53–56)
Aluminium (powder stabilised)(7429-90-5)		
United Kingdom	Local name	Aluminium
United Kingdom	WEL TWA (mg/m³)	2 mg/m³ alkyl compounds 2 mg/m³ salts, soluble 10 mg/m³ metal, inhalable dust 4 mg/m³ metal, respirable dust
Manganese (7439-96-5)		
EU	Local name	Manganese
EU	IOELV TWA (mg/m³)	0,2 mg/m³ (inhalable fraction) 0,05 mg/m³ (respirable fraction)
EU	Notes	SCOEL Recommendations (2011)
United Kingdom	Local name	Manganese
United Kingdom	WEL TWA (mg/m³)	0,5 mg/m³ and its inorganic compounds (as Mn)

8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Welders gloves (Technical Standard DIN 4841-4)

Eye protection:

For splash risk use face shield (EN 166).

Skin and body protection:

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Respiratory protection:

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Wear appropriate mask. Filter EN 143 - P2

Personal protective equipment symbol(s):



Other information:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Rods, plates and ingots.
Colour	: Yellow to red.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 990 - 1054 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable solid, Metal powder.
Vapour Pressure 20°C	: No data available
Vapour density	: No data available
Relative density	: 7,5 - 9
Density	: 0,27 - 0,323 lb/in3 (20 °C)
Solubility	: Insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable (in terms of reactivity hazards) under recommended storage & use conditions (see Section 7).

10.2. Chemical stability

Stable (in terms of chemical stability) under recommended storage & use conditions (see Section 7).

10.3. Possibility of hazardous reactions

Violent to explosive reaction on exposure to temperature rise with water (moisture).

10.4. Conditions to avoid

Water, humidity.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Burning material releases heavy metal oxide fumes.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

12.2. Persistence and degradability

Cu-Al Alloys	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Cu-Al Alloys	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

Cu-Al Alloys	
Ecology - soil	Not established.

12.5. Results of PBT and vPvB assessment

Cu-Al Alloys	
PBT: not yet assessed	
vPvB: not yet assessed	

12.6. Other adverse effects

Additional information	: Avoid release to the environment.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

27. Nickel	Nickel (pow der <1mm)
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Aluminium (pow der stabilised)

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Flam. Sol. 1	Flammable solids, Category 1
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H317	May cause an allergic skin reaction.

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H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product