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

1.1. Product identifier

Product form : Substance
 Trade name/designation : ALUMINIUM
 Chemical name : Aluminium
 EC-No. : 231-072-3
 CAS-No. : 7429-90-5
 REACH registration No : 01-2119529243-45
 Product group : Trade product

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Alloy,
 particulate,
 Powder,
 Article,
 Recycling,
 Welding,
 Spraying,
 Packaging material,
 Molten form,
 Coating .

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Trafigura Ventures V.B.V.
 Evert van de Beekstraat 1-82
 The Base, Tower B - 5th Floor
 1118 CL Schiphol - The Netherlands
 T +31 20 504 1800
TrafiguraReach@trafigura.com

1.4. Emergency telephone number


Emergency number : +32 3 575 03 30
 This telephone number is available 24 hours per day, 7 days per week.

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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2.2. Label elements

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

Not applicable.

2.3. Other hazards

Other hazards : Risk of dust explosion.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name : ALUMINIUM
CAS-No. : 7429-90-5
EC-No. : 231-072-3

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminium	(CAS-No.) 7429-90-5 (EC-No.) 231-072-3 (EC Index) 013-002-00-1	>= 95	Water-react. 2, H261 Flam. Sol. 1, H228

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice : Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance. Treat symptomatically.

Inhalation : Keep at rest. Provide fresh air. In case of doubt or persistent symptoms, consult always a physician.

Skin contact : Wash skin with plenty of water. In case of doubt or persistent symptoms, consult always a physician.

Eyes contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion : Rinse mouth. In case of doubt or persistent symptoms, consult always a physician.

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

Inhalation : as offered : This product has no known adverse effect on human health. May be irritating. AFTER INHALATION OF DUST:


Skin contact : No adverse effects are expected.

Eyes contact : No adverse effects are expected. Dust may cause painful eye irritation and tearing.

Ingestion : No adverse effects are expected.

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

No data available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Solid form : Co-ordinate fire-fighting measures to the fire surroundings. powdered form : extinguishing powder (Type D). Dry sand .
- Unsuitable extinguishing media : Strong water jet. Halogenated compounds.

5.2. Special hazards arising from the substance or mixture

- Specific hazards : In molten state: Reacts violently with water. metal oxides . Melting alone may cause steam explosion on contact with water. Hazardous decomposition products AlOx. Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

5.3. Advice for firefighters

- Firefighting instructions : Use personal protective equipment as required. In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- For non-emergency personnel : Use personal protective equipment as required. Reference to other sections: 8 . Provide adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect in closed and suitable containers for disposal. Dispose of contaminated materials in accordance with current regulations.

6.4. Reference to other sections

No data available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid dust formation. Provide adequate ventilation. During handling operations: Do not breathe vapours/dust.
- Hygiene measures : Keep good industrial hygiene.

7.2. Conditions for safe storage, including any incompatibilities


- Technical measures : Keep container tightly closed in a cool, well-ventilated place. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.3. Specific end use(s)


No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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Aluminium (7429-90-5)		
Austria	MAK (mg/m ³)	10 mg/m ³ (inhalable fraction)
Austria	MAK Short time value (mg/m ³)	20 mg/m ³ (inhalable fraction)
Belgium	Limit value (mg/m ³)	1 mg/m ³
Bulgaria	OEL TWA (mg/m ³)	10 mg/m ³ (metal dust) 1,5 mg/m ³ (respirable fraction)
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	10 mg/m ³ (total dust) 4 mg/m ³ (respirable dust)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	10 mg/m ³ (dust)
Denmark	Grænseværdie (langvarig) (mg/m ³)	5 mg/m ³ (dust, fume and powder, total) 2 mg/m ³ (dust and powder, respirable)
Estonia	OEL TWA (mg/m ³)	10 mg/m ³ (total dust) 4 mg/m ³ (respirable dust)
France	VME (mg/m ³)	10 mg/m ³ (metal) 5 mg/m ³ (dust)
Greece	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable fraction) 5 mg/m ³ (respirable fraction)
Hungary	AK-érték	6 mg/m ³ (respirable dust)
Ireland	OEL (8 hours ref) (mg/m ³)	1 mg/m ³ (respirable fraction)
Ireland	OEL (15 min ref) (mg/m ³)	3 mg/m ³ (calculated-respirable dust)
Latvia	OEL TWA (mg/m ³)	2 mg/m ³
Lithuania	IPRV (mg/m ³)	5 mg/m ³ (inhalable fraction) 2 mg/m ³ (respirable fraction) 1 mg/m ³
Poland	NDS (mg/m ³)	2,5 mg/m ³ (inhalable fraction) 1,2 mg/m ³ (respirable fraction)
Portugal	OEL TWA (mg/m ³)	10 mg/m ³ (metal dust)
Romania	OEL TWA (mg/m ³)	3 mg/m ³ (dust) 1 mg/m ³ (fume)
Romania	OEL STEL (mg/m ³)	10 mg/m ³ (dust) 3 mg/m ³ (fume)
Slovakia	NPHV (priemerná) (mg/m ³)	1,5 mg/m ³ (metal) 6 mg/m ³ (total aerosol)
Spain	VLA-ED (mg/m ³)	10 mg/m ³ (dust)
Sweden	nivågränsvärde (NVG) (mg/m ³)	5 mg/m ³ (total dust) 2 mg/m ³ (respirable dust)
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)
United Kingdom	WEL STEL (mg/m ³)	30 mg/m ³ (calculated-inhalable dust) 12 mg/m ³ (calculated-respirable dust)
Norway	Grænseverdier (AN) (mg/m ³)	5 mg/m ³ (pyrotechnical-powder)
Norway	Grænseverdier (Korttidsverdi) (mg/m ³)	10 mg/m ³ (pyrotechnical, value calculated-powder)
Switzerland	MAK (mg/m ³)	3 mg/m ³ (respirable dust)
Australia	TWA (mg/m ³)	10 mg/m ³ (dust) 5 mg/m ³ (welding fume)
Canada (Quebec)	VFMP (mg/m ³)	10 mg/m ³

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Aluminium (7429-90-5)		
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)

ALUMINIUM (7429-90-5)	
DNEL/DMEL (workers)	
Long-term - local effects, inhalation	3,72 mg/m ³
DNEL/DMEL (general population)	
Long-term - systemic effects, oral	3,95 mg/kg bodyweight/day
PNEC (STP)	
PNEC sewage treatment plant	(factor 10) 20 mg/l


8.2. Exposure controls

Engineering measure(s)	: Use only in area provided with appropriate exhaust ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapours.
Hand protection	: Not required for normal conditions of use . Protective gloves (EN 388, EN 407)
Eye protection	: Not required for normal conditions of use . Safety glasses with side-shields (EN 166, EN 407)
Body protection	: Overalls, apron and boots recommended. The melted product can cause severe burns. Flame-retardant protective clothing
Respiratory protection	: Not required for normal conditions of use . Avoid dust formation. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. (EN 137). Effective dust mask (EN 149). Full face mask (EN 136) (EN 136). Half-face mask (DIN EN 140) (EN 140). Filter type: P (EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Solid.
Colour	: No data available.
Odour	: No data available.
Odour threshold	: No data available
pH	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Melting / freezing point	: ~ 660 °C
Freezing point	: No data available
Initial boiling point and boiling range	: ~ 2467 °C
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Vapour density	: No data available

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Density	: ~ 2,702 g/cm ³ (20°C)
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Kinematic viscosity	: No data available
Dynamic viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: Not applicable.
Explosive limits	: Not applicable

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reference to other sections: 10.5.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Exposure to moisture.

10.5. Incompatible materials

Incompatible with acids and bases. Oxidising agent .

10.6. Hazardous decomposition products

AlOx.

SECTION 11: Toxicological information


11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified pH: Not applicable
Serious eye damage/irritation	: Not classified pH: Not applicable
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

Environmental persistence : Not based on

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12.2. Persistence and degradability

ALUMINIUM (7429-90-5)	
Persistence and degradability	No data is available on the product itself.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contaminated materials in accordance with current regulations. Do not allow to enter into surface water or drains.
 European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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

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- Inland waterway transport

No data available

- Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

No REACH Annex XVII restrictions

ALUMINIUM is not on the REACH Candidate List

ALUMINIUM is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

Reference to AwSV

: Water hazard class (WGK) nwg, Non-hazardous to water (KBwS-Beschluss; ID No. 1443)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed


15.2. Chemical safety assessment

SECTION 16: Other information

Indication of changes:

1		Modified	
15		Modified	
16		Modified	

Sources of key data used to compile the : European Chemicals Bureau.

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Full text of H- and EUH-statements:

Flam. Sol. 1	Flammable solids, Hazard Category 1
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Hazard Category 2
H228	Flammable solid
H261	In contact with water releases flammable gases.

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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