

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form	: Substance
Trade name	: UN1396 Aluminium powder GLR
Chemical name	: aluminium powder (stabilised)
IUPAC name	: aluminium
EC Index-No.	: 013-002-00-1
EC-No.	: 231-072-3
CAS-No.	: 7429-90-5
Product code	: ALPW-00P
Formula	: Al

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Laboratory use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

labbox labware s.l.
Migjorn, 1
P.O. Box Barcelona (SPAIN)
08338 Premia de Dalt – SPAIN
ES
T +34 937 07 79 70 - F +34 937 909 532
info@labbox.com - www.labbox.com

1.4. Emergency telephone number

Emergency number : +34 937 077 970 (For technical information_Office Hours) In case of medical emergency phone 112 or to your local emergency number.

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Flammable solids, Category 1 H228
Substances and Mixtures which, in contact with water, emit flammable gases, Category 2 H261
Full text of H and EUH statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

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

Hazard pictograms (CLP)

:



GHS02

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H228 - Flammable solid.

H261 - In contact with water releases flammable gases.

Precautionary statements (CLP)

: P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P223 - Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232 - Handle under inert gas. Protect from moisture.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P302 - IF ON SKIN:

P335+P334 - Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

P370+P378 - In case of fire: Use media other than water for extinction.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type

: Mono-constituent

Name	Product identifier	%
Aluminium powder	CAS-No.: 7429-90-5 EC-No.: 231-072-3 EC Index-No.: 013-002-00-1	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Get medical advice/attention if you feel unwell.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact

: Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact

: Immediately rinse with water for a prolonged period while holding the eyelids wide open.

First-aid measures after ingestion

: If swallowed, seek medical advice immediately and show this container or label.

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

No additional information available

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

Never give anything by mouth to an unconscious person.

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder.
Unsuitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable solid.
Hazardous decomposition products in case of fire : May release flammable gases.

5.3. Advice for firefighters

Precautionary measures fire : Stop leak if safe to do so.
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 : Absorb spillage to prevent material damage. Do not allow contact with water.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

Emergency procedures : Stop release. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Large spills: scoop solid spill into closing containers. Minimise generation of dust.

6.4. Reference to other sections

See Heading 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Keep containers closed. Do not allow contact with water.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a well-ventilated place. Keep container tightly closed.
Incompatible materials : Heat sources. Sources of ignition. Direct sunlight.
Maximum storage period : 6 months
Storage temperature : 5 – 30 °C
Storage area : Store away from heat. Store in a well-ventilated place.
Special rules on packaging : Keep only in original container. Store in a closed container.

7.3. Specific end use(s)

Laboratory chemicals.

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

UN1396 Aluminium powder GLR (7429-90-5)	
France - Occupational Exposure Limits	
Local name	Aluminium métal
VME (OEL TWA)	10 mg/m ³ 5 mg/m ³
Remark	Valeurs recommandées/admises
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Aluminium
AGW (OEL TWA) [1]	1,25 mg/m ³ A (mg/m ³) 10 mg/m ³ E (mg/m ³)
Remark	AGS,DFG
Portugal - Occupational Exposure Limits	
Local name	Alumínio e compostos insolúveis, expresso em Al
OEL TWA	1 mg/m ³ R (Fração respirável)
Spain - Occupational Exposure Limits	
Local name	Aluminio
VLA-ED (OEL TWA) [1]	10 mg/m ³ Metal en polvo 2 mg/m ³ Alquilos, como Al 5 mg/m ³ Humos de soldadura, como Al 5 mg/m ³ Polvos de aluminotermia, como Al 2 mg/m ³ Sales solubles, como Al
United Kingdom - Occupational Exposure Limits	
Local name	Aluminium
WEL TWA [1]	2 mg/m ³ alkyl compounds 2 mg/m ³ salts, soluble 10 mg/m ³ metal, inhalable dust 4 mg/m ³ metal, respirable dust

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

UN1396 Aluminium powder GLR (7429-90-5)	
PNEC (Water)	
PNEC aqua (freshwater)	74,9 µg/l
PNEC (STP)	
PNEC sewage treatment plant	20 mg/l

8.1.5. Control banding

No additional information available

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

EN 374. Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Category II			EN 166

8.2.2.2. Skin protection

Skin and body protection	
Type	Standard
Category III	EN ISO 13287, EN ISO 20345

Hand protection:

Gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Category I					

Other skin protection

Materials for protective clothing

Condition	Material	Standard
		EN 1149-1, EN 1149-2, EN 1149-3, EN 1149-5, EN 168, EN ISO 14116

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Grey.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: 660 °C
Freezing point	: Not available
Boiling point	: 2467 °C
Flammability	: Flammable solid.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 1 Temp.: 1284 °C
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 2,7 Type: 'relative density'
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable in use and storage conditions as recommended in item 7.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Risk of explosion by shock, friction, fire or other sources of ignition. heat sources. Direct sunlight. Do not allow contact with water.

10.5. Incompatible materials

Strong acids. Water. Strong bases.

10.6. Hazardous decomposition products

No additional information available

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

UN1396 Aluminium powder GLR (7429-90-5)	
LD50 oral rat	> 15900 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 inhalation rat (mg/l)	> 0,888 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

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

UN1396 Aluminium powder GLR (7429-90-5)	
NOAEL (animal/male, F0/P)	1000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

UN1396 Aluminium powder GLR (7429-90-5)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0,05 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

UN1396 Aluminium powder GLR (7429-90-5)	
EC50 72h - Algae [1]	1,05 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0,2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Must follow special treatment according to local regulation.
HP Code	: HP3 - "Flammable:" <ul style="list-style-type: none">— flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;— flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;— flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;— flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;— water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;— other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR)	: UN 1396
UN-No. (IMDG)	: UN 1396
UN-No. (IATA)	: UN 1396
UN-No. (ADN)	: UN 1396
UN-No. (RID)	: UN 1396

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ALUMINIUM POWDER, UNCOATED
Proper Shipping Name (IMDG)	: ALUMINIUM POWDER, UNCOATED
Proper Shipping Name (IATA)	: Aluminium powder, uncoated
Proper Shipping Name (ADN)	: ALUMINIUM POWDER, UNCOATED
Proper Shipping Name (RID)	: ALUMINIUM POWDER, UNCOATED
Transport document description (ADR)	: UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II, (D/E)
Transport document description (IMDG)	: UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II
Transport document description (IATA)	: UN 1396 Aluminium powder, uncoated, 4.3, II
Transport document description (ADN)	: UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II
Transport document description (RID)	: UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 4.3
Danger labels (ADR) : 4.3



IMDG

Transport hazard class(es) (IMDG) : 4.3
Danger labels (IMDG) : 4.3



IATA

Transport hazard class(es) (IATA) : 4.3
Danger labels (IATA) : 4.3



ADN

Transport hazard class(es) (ADN) : 4.3
Danger labels (ADN) : 4.3



RID

Transport hazard class(es) (RID) : 4.3
Danger labels (RID) : 4.3



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : W2

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Limited quantities (ADR)	: 500g
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P410, IBC07
Special packing provisions (ADR)	: PP40
Mixed packing provisions (ADR)	: MP14
Portable tank and bulk container instructions (ADR)	: T3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V1
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV23
Hazard identification number (Kemler No.)	: 423
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: 4W

Transport by sea

Limited quantities (IMDG)	: 500 g
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P410
Special packing provisions (IMDG)	: PP40
IBC packing instructions (IMDG)	: IBC07
IBC special provisions (IMDG)	: B2
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-G
EmS-No. (Spillage)	: S-O
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: H1
Segregation (IMDG)	: SG32, SG35, SG36, SG26
Properties and observations (IMDG)	: In contact with water, caustic alkalis or acids, evolves hydrogen, a flammable gas. When finely divided aluminium dust is scattered, it is easily ignited by naked lights, causing explosion. May explode when in contact with oxidizing substances. Reacts with liquid halogenated hydrocarbons.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y475
PCA limited quantity max net quantity (IATA)	: 5kg
PCA packing instructions (IATA)	: 484
PCA max net quantity (IATA)	: 15kg
CAO packing instructions (IATA)	: 490
CAO max net quantity (IATA)	: 50kg
Special provisions (IATA)	: A3
ERG code (IATA)	: 4W

Inland waterway transport

Classification code (ADN)	: W2
Limited quantities (ADN)	: 500 g
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Provisions for handling and stowage of the cargo (ADN)	: HA08
Number of blue cones/lights (ADN)	: 0

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Rail transport

Classification code (RID)	: W2
Limited quantities (RID)	: 500g
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P410, IBC07
Special packing provisions (RID)	: PP40
Mixed packing provisions (RID)	: MP14
Portable tank and bulk container instructions (RID)	: T3
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAN
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W1
Special provisions for carriage - Loading, unloading and handling (RID)	: CW23
Colis express (express parcels) (RID)	: CE10
Hazard identification number (RID)	: 423

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
40.	UN1396 Aluminium powder GLR

REACH Annex XIV (Authorisation List)

UN1396 Aluminium powder GLR is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

UN1396 Aluminium powder GLR is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

UN1396 Aluminium powder GLR is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

UN1396 Aluminium powder GLR is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Aluminium powder is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

VOC Directive (2004/42)

VOC content : 0 %

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

UN1396 Aluminium powder GLR

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK nwg, Non-hazardous to water (KBwS-Beschluss; ID No. 1443).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

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

Safety Data Sheet (SDS), EU

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.