

According to directive 1907/2006/EC,2020/878
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Trade name: Aluminium hydroxide

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

1.1 Product identification:

Product name: Aluminium hydroxide
Synonyms: Alolt, A1 ATP powder
REACH Number : 01-2119529246-39
CAS No : 21645-51-2

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

Usage: Thickener for the A1 Liquid/Powder system
Laboratory chemicals, Manufacture of substances
Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet:

Responsible distributor : ASSYST bvba / A.S.O.W. bvba
Hellegatstraat 13a
2590 Berlaar
Belgium
Tel: +32 495 50 61 14 / +32 496 83 70 27
Website: www.assyst.org / www.artsuppliesonweb.com
Email: ao@assyst.org / vera.opsommer@assyst.org

1.4 Emergency phone number:

For Belgium: Call the **Poison Control Centre (070 245 245 - free)**, if not available: **02 264 96 30** (normal rate) or your doctor. In life-threatening situations, always call the European emergency number **112**.
NHS 24 Direct For help from a GP, visit your GP surgery's website, use an online service to contact your GP, or call the surgery. **For urgent medical help**, use the NHS 111 online service, or **call 111** if you are unable to get help online. **For life-threatening emergencies, call 999** for an ambulance. There is more information about getting medical help on the NHS website.

SECTION 2: Identification of hazards

2.1 Classification of the substance or mixture:

Classification according to directive (EC) No 1272/2008 and its amendments.

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

2.2 Labelling elements:

Labelling according to regulation (EC) No 1272/2008 [CLP/GHS]:

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

2.3 Other hazards:

This substance/mixture does not contain any components that can be considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components believed to have endocrine-disrupting properties according to REACH article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at level 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components believed to have endocrine-disrupting properties according to REACH article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at level 0.1% or higher.

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SECTION 3: Composition and information on ingredients

3.1 Substances:

Formula : H3AlO3
Molecular weight : 78.00 g/mol
CAS No : 21645-51-2
EC No : 244-492-7
Specific composition due to applicable regulations not necessary to show

SECTION 4: First aid measures

4.1 Description of first-aid measures:

When inhaled

If inhaled, move victim to fresh air.
If breathing has stopped artificial respiration.

On contact with skin

Wash up with soap and plenty of water.

On contact with eyes

Rinse eyes with water as a precaution.

If swallowed

Never let an unconscious person drink (or eat).
Rinse mouth with water.

4.2 Main acute and delayed symptoms and effects:

The main known symptoms and effects are described on the label (see section 2.2) and/or section 1.1.

4.3 Indication of immediate medical attention and special treatment required:

No data available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media:

Suitable extinguishing agents:

Use water spray, alcohol-resistant foam, drying powder, or carbon dioxide.

Unsuitable extinguishing media:

No strong water jet.

5.2 Special hazards arising from the substance or mixture:

Aluminium oxide.

Non-flammable.

5.3 Advice for firefighters:

If necessary, wear a compressed air mask when fighting fires.

5.4 Further information

No data available.

SECTION 6: Measures in case of accidental release of the substance or mixture

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid dust formation.

Avoid inhalation of fumes/mist/mist/gas.

For personal protection, see section 8.

6.2 Environmental precautions:

No special environmental spill precautions required.

6.3 Methods and materials for containment and cleaning:

Gathering and boasting.

Store in suitable and closed containers for disposal.

6.4 Reference to other sections:

For waste disposal, see section 13.

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SECTION 7: Handling and storage:

7.1 Precautions for safe handling of the substance or mixture:

Advice on protection against fire and explosion

Provide suitable exhaust ventilation in areas where dust is generated.

Hygiene measures

Apply general industrial hygiene.

For precautions, see chapter 2.2.

7.2 Conditions for safe storage, including incompatibilities:

Storage conditions

Keep container tightly closed in a dry and well-ventilated place.

Store in a cool place.

Storage class

German storage classification (TRGS 510): 13: Non-combustible solids.

7.3 Specific end use:

Part of the uses listed in section 1.2, no other uses agreed.

SECTION 8: Exposure controls/personal protection measures

8.1 Control parameters:

Components with workplace limit values:

Component	CAS No.	Control parameters	Value	Basic
Aluminium hydroxide	21645-51-2	TGG 8 hr	1 mg/m ³ inhalable fraction	Occupational exposure limits

8.2 Exposure control measures:

Personal protective equipment

Eye/face protection

Use face and/or eye protection tested and approved by official bodies such as NIOSH (US) or EN166 (EU).

Skin protection

Handle with gloves.

Check gloves thoroughly before use.

Remove gloves neatly without touching the outside with the bare hand.

Dispose of used gloves immediately according to applicable laboratory rules.

Wash and dry hands.

The safety gloves chosen must meet the specifications of Regulation (EU) 2016/425 and standard En 374, which is derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Breakthrough time: 480 min

Material tested: KCL 741 Dermatril® L

Spad contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Breakthrough time: 480 min

Material tested: KCL 741 Dermatril® L

Source data: KCL GmbH, D-36124 Eichenzell, Telephone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374.

When used in solution, or mixed with other ingredients, or under conditions other than according to EN 374, first contact the supplier of the gloves approved according to EC directives.

This recommendation is advisory only and should be evaluated by an occupational hygienist or safety expert familiar with the specific situation and use by our clients.

It should not be seen as direct permission for every specific usage scenario.

Body protection

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Choose protective clothing according to the type, quantity and concentration of hazardous substances, and the specific workplace.

The type of protective equipment depends on the concentration and quantity of hazardous substances at the relevant workplace.

Respiratory protection

Face mask is not required.

Wear protection and a dust mask type N95 (US) or type P1 (EN 143), if certain nuisance/value is detected and/or dust particles are wanting.

Use respiratory masks tested and approved by official government bodies such as NIOSH (US) or CEN (EU).

Preventing environmental exposure

No special environmental spill precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical state:	solid
Colour:	white
Odour:	odourless
Melting/freezing point	300°C - Removal of crystal water
Melting point:	
Initial boiling point and boiling range:	Not applicable
Flammability (solid, gas):	The product is not flammable.
High/low flammability or explosive limits:	No data available
Flash point:	Not applicable
Self-ignition temperature:	No data available
Decomposition temperature approx.:	150 - 300°C
pH:	about 8 - 9 at 100 g/l at 20°C (suspension)

Viscosity

Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Solubility in water at 20°C - Guideline test OECD 105:	insoluble
Partition coefficient: n-octanol/water:	Does not apply to inorganic substances
Vapour pressure:	< 0.1 hPa at 20°C
Density:	2.42 g cm ³ at 20°C

Relative density

Relative vapour density:	No data available
Particle characteristics:	No data available
Explosive properties:	No data available
Oxidising properties:	no

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity:

No data available.

10.2 Chemical Stability:

Stable under recommended storage conditions.

10.3 Potential Hazardous Reactions:

Exothermic reaction with:
Strong acids.

10.4 Conditions to avoid:

No data available.

10.5 Chemically interacting Materials:

No data available.

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10.6 Hazardous Decomposition Products:

In case of fire: see chapter 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity

LD50 Oral - Rat - female - > 2,000 mg/kg
(Guideline test OECD 423)

Inhalation: No data available

Skin: No data available

Skin corrosion/irritation

Skin - rabbit

Result: No skin irritation - 4 h
(Guideline test OECD 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: no eye irritation
(Guideline test OECD 405)

Respiratory/skin sensitisation

Maximisation test - Guinea pig

Result: negative
(Guideline test OECD 406)

Mutagenicity in gametes

Test type: Test for mutations of mammalian cell genes in vitro

Test system: Mouse lymphoma test

metabolic activation: with and without metabolic activation

Method: Guideline test OECD 476

Result: negative

Test type: In vivo micronucleus test

Species: Rat

Cell type: Bone marrow

Method of application: Oral

Method: Guideline test OECD 474

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional information

Endocrine-disrupting properties

Product:

Assessment : The substance/mixture does not contain any components believed to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at level 0.1% or higher.

Repeated dose toxicity - Rat - male - Oral - 28 d - No adverse effect dose - 302 mg/kg.

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Comments: Subacute toxicity

SECTION 12: Ecological information

12.1 Toxicity:

No data available.

12.2 Persistence and Degradability:

Methods for determining biodegradability are not applicable for inorganic substances.

12.3 Bioaccumulation:

No data available.

12.4 Mobility in soil:

No data available.

12.5 Results of PBT and vPvB assessment:

This substance/mixture does not contain any components that can be considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain any components believed to have endocrine-disrupting properties according to REACH article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at level 0.1% or higher.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal instructions

13.1 Waste treatment methods:

Product

Offer residues and non-reusable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Information relating to transport

14.1 UN number

The transport of this substance is not subject to regulations.

14.2 Proper cargo name according to UN model regulations

The transport of this substance is not subject to regulations.

14.3 Transport hazard class(es)

The transport of this substance is not subject to regulations.

14.4 Packing group

The transport of this substance is not subject to regulations.

14.5 Environmental hazards

The transport of this substance is not subject to regulations.

14.6 Special precautions for the user

The transport of this substance is not subject to regulations.

14.7 Transport in bulk in accordance with Annex II to MARPOL 73/78 and the IBC Code

Notes: Not applicable for product as supplied.

SECTION 15: Statutory information

15.1 Safety, health and environmental regulations and legislation specific to the substance or mixture:

This safety data sheet complies with the requirements of Regulation (EC) Number 1907/2006.

15.2 Chemical safety assessment:

No data available.

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SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road (ADR Agreement); AIC - Australian Inventory of Industrial Chemicals; ASTM - American Association for the Testing of Materials; bw - Body Weight; CMR - Carcinogenic, Mutagenic or Toxic to Reproduction; DIN - Standard of the German Institute for Standardisation; DSL - List of substances used indoors (Canada); ECx - Concentration associated with x% response; ELx - Loading capacity associated with x% response; EmS - Emergency schedule; ENCS - Existing and new chemicals (Japan); ErCx - Concentration associated with x% growth response; GHS - Globally Harmonised System; GLP - Good laboratory practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - IMO International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk; IC50 - Half-Maximum Inhibitory Concentration; ICAO - International Civil Aviation Organisation; IECSC - Inventory List of Existing Chemicals in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korean Inventory List of Existing Chemicals; LC50 - Lethal concentration for 50% of a test population; LD50 - Lethal dose for 50% of a test population (lethal dose median); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not otherwise specified; NO(A)EC - No discernible (negative) effect on concentration; NO(A)EL - No discernible (negative) effect on Level; NOELR - No discernible effect on cargo capacity; NZIoC - New Zealand inventory of chemicals; OECD - Organisation for Economic Co-operation and Development OECD; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, bioaccumulative and toxic substance; PICCS - Philippine inventory of chemicals and chemical substances; (Q)SAR - (Quantitative) structure-activity relationships; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH); RID - Regulations concerning the International Carriage of Dangerous Goods by Rail (RID); SADT - Self-accelerating decomposition temperature; SDS - Safety Data Sheet; TCSI - Taiwan Inventory of Chemical Substances; TECI - Inventory of Chemicals Existing in Thailand; TSCA - Toxic Substances Control Act (USA); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

The above information is believed to be correct but makes no claim of completeness and should be used as a guide only. We will not be liable for any damage arising from handling or contact with the above product.