

ALUMINIUM SULPHATE TETRADECAHYDRATE SOLID
Code : 10290
SECTION 1. Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

- * Chemical description : Dialuminium trisulphate , Aluminium sulfate tetradecahydrate .
- Type of product : Pure product .
- * Reach registration number : 01-2119531538-36

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

- * Identified use(s) : See table on the front page of the annex.
- * Use(s) advised against : This product is not recommended for any industrial, professional or consumer use other than identified in table on the front page of the annex.

1.3. Details of the supplier of the safety data sheet

- * Company identification : BRENNTAG N.V. - Nijverheidslaan 38 - BE-8540 DEERLIJK
TEL: +32(0)56/77.69.44 - FAX: +32(0)56/77.57.11
E-MAIL: info@brenntag.be - Website: www.brenntag.be

BRENNTAG Nederland B.V. - Donker Duyvisweg 44 - NL-3316 BM DORDRECHT
TEL: +31(0)78/65.44.944 - FAX: +31(0)78/65.44.919
E-MAIL: info@brenntag.nl - Website: www.brenntag.nl

1.4. Emergency telephone number

- * Emergency phone number : België : Antipoison Center - Brussels
TEL: +32(0)70/245.245

The Netherlands : National Poisoning Information Center - Bilthoven
TEL: +31(0)30/274.88.88 (Only for the purpose of informing medical personnel in cases of acute intoxications)


SECTION 2. Hazards identification
2.1. Classification of the substance or mixture
Classification according to Directive 67/548/EEC or 1999/45/EC

Irritant (Xi; R41)

Classification according to Regulation (EC) No 1272/2008

- * Serious eye damage - Category 1 - Danger (Eye Dam. 1; H318)

2.2. Label elements
Label in accordance with Regulation (EC) No 1272/2008

- * Dangerous ingredient(s) : Aluminium sulfate tetradecahydrate
- * Hazard pictogram(s) 
- * Signal word : Danger
- * Hazard statements : H318 - Causes serious eye damage.
- * Precautionary statements
- Prevention : P261 - Avoid breathing dust, fume, gas, mist, vapours, spray. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection, face protection.
- Response : P305+P351+P338 - IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor.

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SECTION 2. Hazards identification (continued)
2.3. Other hazards

- * Physical/chemical hazards : The substance decomposes by heating above 770°C in formation of toxic and corrosive vapours (Sulfur dioxide) and metal-containing vapours.
- * Hazards for the health : This product evaporates practically not at 20°C; as a powder during spraying, there will be soon a dangerous concentration in the air.
- * Hazards for the environment : Product causes a drop of the pH-value of water and soil. This product is no substance or contains no PBT or vPvB (in accordance with Annex XIII).
- * Hazards for the safety : No significant danger.

SECTION 3. Composition/information on ingredients
3.1. Substances

Name component(s)	Weight %	CAS nr	EINECS nr	Index nr	Reach nr	CLASSIFICATION
* Aluminium sulphate tetradecahydrate	: >= 90 %	16828-12-9	233-135-0	----	01-2119531538-36	Xi; R41 ----- Eye Dam. 1; H318

The full text of the R-phrases and (EU)H-statements is in section 16.

SECTION 4. First aid measures
4.1. Description of first aid measures

- General : In case of doubt or persistent symptoms, call a physician.
Never give anything by mouth to an unconscious person.
- First Aid Measures
- Inhalation : Remove victim into fresh air.
Allow the affected person to rest in semi-sitting position.
If not breathing, give artificial respiration.
Consult a doctor.
 - Skin Contact : Remove contaminated clothing.
Rinse skin immediately with plenty of water. (shower if necessary).
Consult doctor if irritation develops.
 - Eye Contact : Rinse immediately thoroughly and long (at least 15 min.) with plenty of water.
Remove contact lenses.
Consult eye doctor.
Do not use a neutralisation agent.
 - Ingestion : DO NOT INDUCE VOMITING. Rinse mouth with water.
Give victim plenty of water to drink.
Seek medical advice.

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

- * See section 11.

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

- * For specialist advice doctors should contact the NVCI or the Belgian Poison center.

SECTION 5. Firefighting measures
5.1. Extinguishing media

Extinguishing Media

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SECTION 5. Firefighting measures (continued)

- Suitable : In case of nearby fire, use of all extinguishing media allowed.
- * - Insuitable : Not known .

5.2. Special hazards arising from the substance or mixture

Special Exposure Hazards : Fire may liberate carbon oxides (CO) and sulfur oxides.

5.3. Advice for firefighters

- * Special Protective Equipment for Firefighters : Use self-contained breathing apparatus and wear protective clothes when in close proximity to fire.
- Special Procedures : Apply water spray or fog to cool nearby equipment. Avoid fire-fighting water to enter environment.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions : Evacuate all personnel immediately and ventilate area.
Avoid breathing the product and contact with eyes and skin.
Wear recommended personal protective equipment. (See section 8)

6.2. Environmental precautions

Environmental Precautions : Prevent entry of product in public water, sewers or soil.
Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for Cleaning Up : Collect the spillage in closable, suitable disposal containers.
Residue is to be washed down with plenty of water.

6.4. Reference to other sections

- * For personal protection, see section 8.
- For the removal of the waste product, see section 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

- * Handling : Ventilate area. Avoid dust creation.
Avoid breathing the product and contact with eyes and skin.
Wear recommended personal protective equipment. (See section 8)
When using, do not eat, drink or smoke.
Wash hands before and after working with the product.
Emergency eye wash fountains and showers should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities

- * Storage : Keep only in the original, safely locked container in a cool, well ventilated and dry place.
All dangerous products should be placed on a drip tray or should be barreled.
Keep away from : Bases , Oxidizing agents .
- * Packaging Material : Synthetic material .
- * Insuitable Packaging Material : Metals .

7.3. Specific end use(s)

- * For identified uses, see subsection 1.2 and/or exposure scenarios.

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SECTION 8. Exposure controls/personal protection

8.1. Control parameters

- * Occupational Exposure Limits : Aluminium sulphate tetradecahydrate : Limit value (BE) : 2 mg/m² (Al) (2011)
- * Biological limit values : They will be included when available.
- * DNELs : The following data are valid for Aluminium sulphate anhydrous (CAS: 10043-01-3):
 - Aluminium sulphate tetradecahydrate : Worker, long-term - systemic effects, inhalation : 20,2 mg/m³ (CAS: 10043-01-3)
 - Aluminium sulphate tetradecahydrate : Consumer, long-term - systemic effects, oral : 3,4 mg/kg bw/ day (CAS: 10043-01-3)
- * PNECs : The following data are valid for Aluminium sulphate anhydrous (CAS: 10043-01-3):
 - Aluminium sulphate tetradecahydrate : Fresh water : 0,3 µg/l (CAS: 10043-01-3)
 - Aluminium sulphate tetradecahydrate : Marine water : 0,03 µg/l (CAS: 10043-01-3)
 - Aluminium sulphate tetradecahydrate : Sewage treatment plant : 20 mg/l (CAS: 10043-01-3)

8.2. Exposure controls

- * Engineering Measures : Ventilation , Local exhaust .
- * Personal Protection Equipment
 - Respiratory protection : Respiratory protection equipment (Filter type B-P2).
 - Skin protection : Suitable protective clothing .
 - Hand protection : Suitable material for safety gloves (EN 374):
The suitability for a specific workplace should be discussed with the producers of the protective gloves.
 - material : Rubber
 - thickness : 0,11 mm
 - breakthrough time : > 8 h
 - Eye/Face protection : Chemical goggles .
- * Environmental exposure controls : See sections 6, 7, 12 and 13.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical State (20°C) : Solid .
- Form/Colour : White .
- Odour : Odourless .
- * Odour threshold : Not applicable.
- pH value : app. 3
- * Melting/Freezing point : > 650 °C (Decomposes)
- Boiling Point/Range (1013 hPa) : No data available.
- Flash point : Not applicable.
- * Fire hazard : Not applicable.
- * Evaporation rate : Not applicable.
- Explosion limits in air : Not applicable.
- * Vapour pressure : Not applicable.
- * Relative vapour density (air=1) : Not applicable.
- * Relative density of saturated vapour/air mixture (air=1) : Not applicable.
- Relative density (water=1) : 1,7
- Solubility in water : Good solubility.

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SECTION 9. Physical and chemical properties (continued)

- Log P Octanol/Water (20°C) : -2
- * Auto-ignition temperature : Not established.
- * Minimum ignition energy : Not established.
- * Decomposition temperature : 650 °C
- Thermal decomposition : > 400 °C
- * Viscosity : Not applicable.
- * Explosive properties : No chemical groups associated with explosive properties .
- * Oxidizing properties : No chemical groups associated with oxidizing properties .

9.2. Other information

- Others : Hygroscopic .

SECTION 10. Stability and reactivity

10.1. Reactivity

- * Reactivity : Reacts with : Bases , Oxidizing agents , Metals .

10.2. Chemical stability

- Stability : Stable at normal circumstances .

10.3. Possibility of hazardous reactions

- * Hazardous reactions : The substance decomposes by heating above 770°C in formation of toxic and corrosive vapours (Sulfur dioxide) and metal-containing vapours.

10.4. Conditions to avoid

- Conditions to avoid : High temperatures , Moisture .

10.5. Incompatible materials

- * Materials to avoid : Bases , Oxidizing agents , Metals .

10.6. Hazardous decomposition products

- Hazardous Decomposition Products : Carbon oxides , Sulfur oxides .

SECTION 11. Toxicological information

11.1. Information on toxicological effects

- Acute toxicity
- Inhalation : May cause irritation of respiratory tract.
Symptoms include: Sore throat , Cough , Difficulty in breathing .
- Skin contact : May be irritating for the skin.
Symptoms include: Redness , Pain .
- * - Ingestion : Symptoms include: Abdominal pain .
• Aluminium sulphate tetradecahydrate : LD50 (Rat, oral) : 6207 mg/kg
- * Skin corrosion/irritation : Not irritant .
- * Serious eye damage/irritation : Causes serious eye damage.
- * Aspiration hazard : Data are insufficient to determine harmful effects to humans.
- * Respiratory or skin sensitisation : Not sensitive .
- * Carcinogenicity : Not listed as carcinogenic .
- * Mutagenicity : Not listed as mutagenic .
- * Reproductive toxicity : Not listed for reproductive toxicity .
- * Specific target organ toxicity - single exposure : To human : Listed not for organ toxicity .
For animals : No effects known.

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SECTION 11. Toxicological information (continued)

- * Specific target organ toxicity - repeated exposure : To human : Listed not for organ toxicity .
For animals : No effects known.

SECTION 12. Ecological information

12.1. Toxicity

- * Ecotoxicity : • Aluminium sulphate tetradecahydrate : LC50 (Fish, 96 h) : > 1000 mg/l (Danio rerio)
• Aluminium sulphate tetradecahydrate : EC50 (Algae, 72 h) : > 41,5 mg/l
• Aluminium sulphate tetradecahydrate : EC50 (Daphnia magna, 48 h) : > 160 mg/l

12.2. Persistence and degradability

- Persistence and degradability : • Aluminium sulphate tetradecahydrate : Persistence and degradability : Inorganic product .

12.3. Bioaccumulative potential

- Bioaccumulation : • Aluminium sulphate tetradecahydrate : Bioaccumulation : Bioaccumulation not expected .

12.4. Mobility in soil

- * Mobility : • Aluminium sulphate tetradecahydrate : Mobility : No data available.

12.5. Results of PBT and vPvB assessment

- * Evaluation : • Aluminium sulphate tetradecahydrate : PBT/vPvB : No

12.6. Other adverse effects

- WGK class (DE) : 1 (Weak water pollutant).
Water damaging (NL) : 11
Decontamination exertion (NL) : B
* Photochemical ozone creation potential : No data available.
* Ozone depletion potential : No data available.
* Endocrine disrupting potential : No data available.
* Global warming potential : No data available.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

- Waste from residues/Unused products : The product has to be destroyed according to national or local legislation, by a company specialised in handling hazardous waste products.
* European list of waste products : XXXXXX - European waste product code. This code is assigned on the basis of the most current applications and can not be representative for pollutions which are arisen at the effective use of the product. The producer of the waste has to evaluate its process himself and has to grant the appropriate waste coding. See Decision 2001/118/EC.
Removal contaminated packaging : Packing is to be used exclusively for the packing of this product.
After use, empty and close the packing very carefully.
In case of returned packing, the empty packing can be offered back to the supplier.

SECTION 14. Transport information

14.1. UN number

- UN Number : -

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SECTION 14. Transport information (continued)

14.2. UN proper shipping name

ADR Name : -
ADN Name : -
IMDG Name : -

14.3. Transport hazard classe(s)

Class : -

14.4. Packing group

Packaging Group : -

14.5. Environmental hazards

* Environmentally hazard : -
Marine pollutant : -

14.6. Special precautions for user

Danger number : -
Hazard Label(s) : -
EmS-N° : -

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

* Type ship : -
* Pollution category : -

SECTION 15. Regulatory information

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

Inventories : Canadian inventory (DSL): Listed in inventory.
Inventory of the United States (TSCA): Listed in inventory.

NFPA n° : 2-0-0

* Relevant EU Rule(s) : Directive 98/24/EC of the Council of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Decision 2001/118/EC of the Commission of 16 January 2001 amending Decision 2000/532/EC as regards the list of wastes
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
Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (Reach)

15.2. Chemical Safety Assessment

* A chemical safety assessment has been carried out for the material.

SECTION 16. Other information

* This safety data sheet has been drawn up in accordance with Regulation (EU) No 453/2010.
This safety data sheet is exclusively made for industrial/professional use.

* Has changed compared to previous revision.

* Changes : General revision .

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SECTION 16. Other information (continued)

- * Sources of used key data : The information contained herein is based on the present state of our knowledge (Producer(s) , Chemical cards , ...).
See also on the webaddress:
<http://apps.echa.europa.eu/registered/registered-sub.aspx#search>
- R-phrase(s) : R41 - Risk of serious damage to eyes.
- * (EU)H-statement(s) : H318 - Causes serious eye damage.
- * List of abbreviations and acronyms : ADN (Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation interieur) : European agreement concerning the international carriage of dangerous goods by inland waterways
ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route) : European agreement concerning the international carriage of dangerous goods by road
CO : Carbon monoxide
DNEL (Derived No Effect Level) : an estimated safe exposure level
EmS (Emergency Schedule) : the first code refers to the relevant fire schedule and the second code refers to the relevant spillage schedule
IMDG (International Maritime Dangerous Goods code)
NFPA (National Fire Protection Association) or fire diamant
NVCi : National Poisoning Information Center
PBT : persistent, bioaccumulative and toxic
PNEC (Predicted No Effect Concentration) : concentration below which exposure to a substance is not expected to cause adverse effects
REACH : Registration, Evaluation, Authorisation and restriction of Chemicals
vPvB : very persistent and very bioaccumulative
WGK (Wassergefährdungsklasse) : a German classification of substances that indicate the environmental hazard for surface water

This information is to our knowledge correct and complete on the date of issue of this safety data sheet. The information only concerns the product and does not give any guarantee for the quality and the completeness of the properties of the product, or in case of mixing or using in any other process. It remains the responsibility of the user to assure himself that the information is suitable and complete concerning the special use he makes of the product.

BRENNTAG denies all responsibility for loss or damage resulting from the use of these data.

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