Safety Data Sheet
according to Regulation (EU) 2020/878

POTASSIUM ALUM

Date of issue: 20.12.2017 Revision date: 14.07.2025 Version/Replaced version: 8.0/7.0

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

1.1. Product identifier

Product form : Substance
Product name : POTASSIUM ALUM
Substance name : Aluminium potassium bis(sulphate) dodecahydrate
EC no : 616-521-7
CAS no : 7784-24-9
Registration no : 01-2119960162-44-xxxx (refers to CAS no 10043-67-1)

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

1.2.1. Relevant identified uses

Main use category : Industrial use. Professional use.
Use of the substance/mixture : Manufacture of basic pharmaceutical products, Manufacture of textiles, Synthetic tanning agent, Flocculating agent, Starting product for pharmaceutical active principle, Cosmetics, personal care products

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Oker-Chemie GmbH
Im Schleeke 77
38642 Goslar - Germany
Tel.: +49 (0)5321 74351-10

Safety Data Sheet: DLAC Dienstleistungsagentur Chemie GmbH, E-mail: sds@dlac-gmbh.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
Germany	Giftinformationszentrum (GIZ-Nord) Zentrum Pharmakologie und Toxikologie der Universität Göttingen	Robert-Koch Straße 40 37075 Göttingen	+49 551 19240 (German, English)

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
To our knowledge, the product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
According to Regulation (EC) No. 1272/2008 [CLP] labelling is not required

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII. Contains no substances at a concentration equal to or greater than 0.1 %, that are included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or that are identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name : Aluminium potassium bis(sulphate) dodecahydrate
EC no : 616-521-7
CAS no : 7784-24-9

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminium potassium bis(sulphate) dodecahydrate	(CAS no) 7784-24-9 (EC no) 616-521-7 (Registration no) 01-2119960162-44-xxxx	≥ 99	Not classified

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. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Drink plenty of water as a precaution. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

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 : The product itself does not burn. Adapt extinguishing agents to the environment. Carbon dioxide. Dry extinguishing powder. Water spray. For a significant fire: Alcohol resistant foam.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Sulfuric oxides (SOx)

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.For further information refer to section 8: "Exposure controls/personal protection".

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Provide adequate ventilation. Avoid dust formation. Do not breathe dust.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate the danger area.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Dispose of in accordance with relevant local regulations. Avoid dust formation.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

POTASSIUM ALUM

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid dust formation. Do not breathe dust. Wear personal protective equipment

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Keep out of direct sunlight. Keep away from heat.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Aluminium potassium bis(sulphate) dodecahydrate (7784-24-9)		
United Kingdom	Local name	Aluminium salts, soluble
United Kingdom	WEL TWA (mg/m³)	2 mg/m³
Ireland	Local name	Aluminium salts, soluble
Ireland	OEL (8 hours ref) (mg/m³)	2 mg/m³

Aluminium potassium bis(sulphate) dodecahydrate (7784-24-9)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	13.05 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	15.54 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.112 mg/l
PNEC aqua (marine water)	0.011 mg/l
PNEC aqua (intermittent, freshwater)	1.1 mg/l
PNEC (STP)	
PNEC sewage treatment plant	63 mg/l

8.2. Exposure controls

Appropriate engineering controls : Provide local exhaust or general room ventilation to minimize exposure to dust.

Hand protection : Not required. In case needed, wear suitable gloves (EN 374). Nitrile rubber. ≥ 0.35 mm, Natural rubber, Butyl rubber, ≥ 0.5 mm. The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection : Not required. In case needed, wear safety glasses (EN 166).

Skin and body protection : Not required. In case needed, wear suitable protective clothing.

Respiratory protection : No respiratory protection needed under normal use conditions. If the occupational exposure limit is exceeded or dust production: Respiratory protective device with particle filter P1. (EN 143).

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid, crystalline

Colour : White

Odour : Odourless

Melting point/freezing point : 90 °C

Boiling point or initial boiling point and boiling range : No data available

Flammability : No data available

Lower and upper explosion limit : No data available

Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	> 400 °C
pH	:	3 - 3.5 (100 g/l H_2O at 20 °C)
Kinematic viscosity	:	Not applicable
Solubility	:	Water: ca. 105 g/l (20 °C)
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	Not applicable
Particle characteristics	:	No data available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	:	Not explosive
Oxidising properties	:	No oxidising properties

9.2.2. Other safety characteristics

Bulk density	:	ca. 1000 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

No conditions to avoid known.

10.5. Incompatible materials

No incompatible materials known.

10.6. Hazardous decomposition products

Sulphur oxides.

SECTION 11: Toxicological information

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

Acute toxicity	:	Not classified Based on available data, the classification criteria are not met. LD50 oral mouse: > 2000 mg/kg (EU Method B.33) (NOAEL: 8160 mg/kg) LD50 dermal mouse: > 2000 mg/kg (EPA OPP 81-2) (NOAEL: > 100 g/kg) LC50 inhalation mouse: > 5 mg/m³ (NOAEL: 13.05 mg/l)
Skin corrosion/irritation	:	Not classified Based on available data, the classification criteria are not met. Rabbit, result: no skin irritation, 4 h (EPA OPP 81-5)
Serious eye damage/irritation	:	Not classified Based on available data, the classification criteria are not met. Rabbit, result: no eye irritation (OECD 405)
Respiratory or skin sensitisation	:	Not classified Based on available data, the classification criteria are not met. Mouse, result: Does not cause skin sensitisation. (EPA OPP 81-6)

Germ cell mutagenicity	:	Not classified Based on available data, the classification criteria are not met. Chromosome aberration test in vitro - Test species: Chinese hamster V79 cells with and without metabolic activation, result: negative (OECD 473)
Carcinogenicity	:	Not classified Based on available data, the classification criteria are not met.
Reproductive toxicity	:	Not classified Based on available data, the classification criteria are not met. NOAEL oral rat: 31 mg/kg (OECD 416) NOAEL oral rat: 4031 mg/kg (EPA OPPTS 870.3700)
Specific target organ toxicity (single exposure)	:	Not classified Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	:	Not classified Based on available data, the classification criteria are not met. NOAEL oral mouse: ≥ 8160 mg/kg (Directive 67/548/EWG, Annex V, B.33) NOAEL inhalation mouse: ≥ 13.05 mg/l NOAEL dermal human: 8.52 mg/kg NOAEC inhalation rat: 6.2 mg/kg (Directive 67/548/EWG, Annex V, B.33)
Aspiration hazard	:	Not classified Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disruption for human health : The substance has no endocrine disrupting properties.

11.2.2. Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	:	Not classified Toxicity fish LC50 (Pimephales promelas): 110 mg/l, 96 h Toxicity daphnia EC50 (Daphnia magna): 206 mg/l, 16 h Toxicity algae EC50 (Chlorella vulgaris): 133.3 mg/l, 72 h
Chronic aquatic toxicity	:	Not classified Toxicity fish NOEC (Oncorhynchus mykiss): 5.58 mg/l, 7 d Toxicity daphnia NOEC (Ceriodaphnia dubia): 21.54 mg/l, 7 d

12.2. Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Not required for inorganic substances.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

This product does not meet the PBT- or vPvB criteria of REACH regulation, annex XIII.

12.6. Endocrine disrupting properties

Endocrine disruption for the environment : The substance has no endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Do not empty into drains.

Waste code : The waste code number according to the Ordinance on the European Waste Catalogue (AVV) depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

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
Not applicable

- Transport by sea
Not applicable

- Air transport
Not applicable

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 Authorisation List (Anhang XIV)

Contains no substance(s) listed on REACH Annex XIV (list of substances subject to authorisation).

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List for Authorisation (substances of very high concern).

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation (EU) 649/2012 concerning the export and import of hazardous chemicals).

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation (EU) 2019/1021 on persistent organic pollutants).

Ozone Regulation

Contains no substance(s) listed on the Ozone Depletion list (Regulation (EU) 2024/590 on substances that deplete the ozone layer).

Explosives Precursors Regulation

Contains no substance(s) listed on the Explosives Precursors list (Regulation (EU) 2019/1148 on the marketing and use of explosives precursors).

Drug Precursors Regulation

Contains no substance(s) listed on the Drug Precursors list (Regulation (EC) 273/2004 on drug precursors).

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Chemical safety assessments for this substance were 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.

Changes compared to earlier Versions : Section 1.1
Section 3.1
Section 8.1

Aluminium potassium bis(sulphate) dodecahydrate (7784-24-9)
Listed on: EINECS/REACH (Europe) Listed on: NZIoC (New Zealand Inventory of Chemicals) Listed on: AICS (Australian Inventory of Chemical Substances) Listed on: TCSI (Taiwan's chemical substance inventory) Listed on: PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
vPvB	Very Persistent and Very Bioaccumulative

POTASSIUM ALUM

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.