



SAFETY DATA SHEET

Aluminium Sulphate

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Revision Date : July , 2019

Synonyms : Aluminum Sulfate, Aluminum Alum, Patent Alum, Filter alum, Paper Maker's Alum, Aluminum Salt.

CAS# : 10043-01-3

EC# : 233-135-0

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture : Classification according to Regulation (EC) No. 1272/2008.

Signal Words : Warning



Pictograms :

GHS Label elements, including precautionary statements : Labelling according Regulation (EC) No 1272/2008.

Other hazards : Not applicable.

Potential health effects :

Inhalation : May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion : May be harmful if swallowed.

Skin : May be harmful if absorbed through skin. May cause skin irritation.

Eyes : May cause eye irritation.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name : Aluminium Sulphate

Chemical Atomic Formula : $\text{Al}_2(\text{SO}_4)_3 \cdot 14\text{H}_2\text{O}$

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Assay : Aluminium Sulphate 17%

4. FIRST AID MEASURES

Eyes : Wash with plenty of water for at least 15 minutes, and seek the doctor if necessary.

Skin : Wash with plenty of water.

Inhalation : If breathed in, move person to fresh air place and keep at rest. Consult doctor if necessary. If not breathing, give artificial respiratory.

Ingestion : If swallowed , rinse mouth with water.
Seek medical attention.

Self-protection of the first aider : Wear gloves while contacting the products. More details, please check section 8.

5. FIRE FIGHTING MEASURES

Flash Point : Product is not flammable.

Flammable Limits : Product is not flammable.

Special Fire Fighting Procedures : Use fire fighting procedure that is appropriate to treat surrounding fire.

Specific hazards arising from the chemical : Emit toxic fumes under fire condition.
(Aluminum Oxide, Potassium Oxide, and Sulphur Oxide)

Extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or Carbon dioxide.

Advice for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Isolate hazard area and deny entry to unnecessary or unprotected personnel.

Contain spill, sweep up, collect and place in a disposal container, Avoid run off into storm sewers and ditches which lead to waterways.

7. HANDLING AND STORAGE

Precautions for safe handling : Avoid contact with skin, eyes and clothing. Avoid

breathing dust. Use normal personal hygiene and housekeeping.

Conditions for safe storage, including any incompatibilities : Store in cool dry area away from other incompatible materials. Product is slightly hygroscopic and should be stored in a dry area to prevent moisture pick up and caking. Please see section 8 for recommendations.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail

sales@kcl.de,

test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : White granular powder.

Odour : Odorless

Boiling Point : Over 120°C

Flash Point : Not Flammable

Vapor Pressure(MM Hg) : Not Applicable

Vapor Density(AIR = 1) : Not Applicable

Relative Density(H₂O = 1) : 1.5 g/cm³ at 25°C

Percent Volatile by Volume(%) : Not Applicable

Melting Point : 93~94°C

Evaporation Rate(Butyl Acetate = 1) : Not Applicable

Partition coefficient: noctanol/water : Not Applicable

Upper/lower flammability or explosive limits : Not Applicable

Auto-ignition temperature : Not Applicable

Decomposition temperature : Not Applicable

Viscosity : Not Applicable

Explosive properties : Not Applicable

Oxidizing properties : Not Applicable

Solubility in Water : 870/g100ml(20°C, dodecahydrate)

Molecular Weight : 594.15g/mol

PH : 3.0 min. (100g/l, H₂O, 20°C)

10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal temperatures and pressures.

Reactivity : No information known.

Hazardous Polymerization : Will not occur under normal conditions.

Hazardous Decomposition Products : Other decomposition products - no data available
In the event of fire: see section 5

Incompatible Materials : Strong oxidizing agents, Bases, Steel (all types and surface treatments), Aluminum, Copper, Zinc

11. TOXICOLOGICAL INFORMATION

Acute toxicity :

no data available

Skin corrosion/irritation :

no data available

Serious eye damage/eye irritation :

no data available

Respiratory or skin sensitization :

no data available

Germ cell mutagenicity :

no data available

Carcinogenicity :

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity :

Developmental Toxicity - rat - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific target organ toxicity - single exposure :

no data available

Specific target organ toxicity - repeated exposure :

no data available

Aspiration hazard :

no data available

Signs and Symptoms of Exposure :

Gastrointestinal disturbance, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information ;

RTECS: WS5690000

12. ECOLOGICAL INFORMATION

Toxicity :

no data available

Persistence and degradability :

no data available

Bioaccumulative potential :

no data available

Mobility in soil :

no data available

Results of PBT and vPvB assessment :

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects :

no data available

13. DISPOSAL CONSIDERATIONS

Disposal Methods : Dispose of according to relevant local, state and federal government regulations. Consult with appropriate regulatory agencies if necessary.

14. TRANSPORTATION INFORMATION

General : Not classified as hazardous for transport, and Not dangerous goods.

UN number : Not applicable

UN proper shipping name : Not dangerous goods

Transport Hazard class : Not applicable

(ADR,AND,IMDG,IATA)

Packing group : Not applicable

(ADR,IMDG,IATA)

Environmental hazards : Not applicable

Special precautions for user : Not applicable

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture : no data available

Chemical Safety Assessment : For this product a chemical safety assessment was not carried out.

16. OTHER

NFPA Ratings – Health – 0 Flammability – 0 Reactivity – 0

HMIS Ratings - Health – 0 Fire – 0 Reactivity – 0 Personal - 0