

**SECTION 1: Identification****1.1. GHS Product identifier**

Product form : Substance  
Trade name : soluAMS® Premium  
Chemical name : Ammonium sulfate  
EC-No. : 231-984-1  
CAS-No. : 7783-20-2  
REACH registration No. (SDS) : 01-2119455044-46

**1.2. Other means of identification**

No additional information available

**1.3. Recommended use of the chemical and restrictions on use**

Use of the substance/mixture : Fertiliser

**1.4. Supplier's details****Manufacturer**

K+S Minerals and Agriculture GmbH

Bertha-von Suttner-Str. 7

34131 Kassel - Deutschland

T +49 561 9301- 0

[info@k-plus-s.com](mailto:info@k-plus-s.com) - [www.kpluss.com](http://www.kpluss.com)

**1.5. Emergency phone number**

Emergency number : For Chemical Emergency Call : for incidents involving hazardous materials [or dangerous goods] spill, leak, fire, exposure or accident, call CHEMTREC 24hr/day 7days/week  
Within USA and Canada: +1 800 424 - 9300  
Outside USA and Canada: +1 703 741 - 5970  
(collect calls accepted)

**SECTION 2: Hazard identification****2.1. Classification of the substance or mixture****Classification according to the United Nations GHS**

Acute toxicity (oral), Category 5 H303 Calculation method

Acute toxicity (dermal), Category 5 H313 Calculation method

Hazardous to the aquatic environment – Acute Hazard, Category 3 H402 Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Harmful in contact with skin, Harmful if swallowed, Harmful to aquatic life

**2.2. GHS Label elements, including precautionary statements****Labelling according to the United Nations GHS**

Signal word (GHS UN) : Warning  
Hazardous ingredients : ammonium sulphate  
Hazard statements (GHS UN) : H303+H313 - May be harmful if swallowed or in contact with skin  
H402 - Harmful to aquatic life  
Precautionary statements (GHS UN) : P273 - Avoid release to the environment.  
P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P501 - Dispose of contents to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**2.3. Other hazards which do not result in classification**

No additional information available

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Name : AMS solu prem ex SI  
CAS-No. : 7783-20-2  
EC-No. : 231-984-1  
Chemical name : Ammonium sulfate  
Product identifiers: See section 1.1

| Name              | Product identifier  | % |
|-------------------|---------------------|---|
| ammonium sulphate | (CAS-No.) 7783-20-2 | - |

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Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of necessary first-aid measures

- First-aid measures general : Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms/effects, acute and delayed

No additional information available

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective actions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and materials for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Mechanically recover the product.
- Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a dry place. Hygroscopic product. Store in a well-ventilated place. Keep cool.
- Incompatible products : alkalis. Nitrites.
- Heat and ignition sources : Protect from heat and direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment (PPE)

- Hand protection : Protective gloves
- Eye protection : Safety glasses (EN 166). Safety glasses

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Skin and body protection : EN 340

Respiratory protection : EN 143

Personal protective equipment symbol(s)



### 8.4. Exposure limit values for the other components

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Basic physical and chemical properties

|                                                 |                                                                                           |
|-------------------------------------------------|-------------------------------------------------------------------------------------------|
| Physical state                                  | : Solid                                                                                   |
| Appearance                                      | : Crystals                                                                                |
| Molecular mass                                  | : 132.14 g/mol                                                                            |
| Colour                                          | : white. Grey.                                                                            |
| Odour                                           | : odourless.                                                                              |
| Odour threshold                                 | : Not available                                                                           |
| Melting point                                   | : > 235 °C                                                                                |
| Freezing point                                  | : Not applicable                                                                          |
| Boiling point                                   | : Not available                                                                           |
| Flammability (solid, gas)                       | : Non flammable.                                                                          |
| 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                       | : ≈ 280 °C Thermal decomposition                                                          |
| pH                                              | : ≈ 5                                                                                     |
| pH solution                                     | : 5 %                                                                                     |
| Viscosity, kinematic (calculated value) (40 °C) | : Not applicable                                                                          |
| Partition coefficient n-octanol/water (Log Kow) | : Not available                                                                           |
| Vapour pressure                                 | : < 0.0000001 hPa 25° C                                                                   |
| Vapour pressure at 50 °C                        | : Not available                                                                           |
| Density                                         | : 1.77 g/cm³ 20° C                                                                        |
| Relative density                                | : Not available                                                                           |
| Relative vapour density at 20 °C                | : Not applicable                                                                          |
| Solubility                                      | : Water: 76.7 g/100ml 20° C                                                               |
| Explosive properties                            | : The product is not explosive. Is not classified according to Regulation (EU) 2019-1148. |
| Oxidising properties                            | : Not oxidising                                                                           |
| Particle size                                   | : Not available                                                                           |
| Particle size distribution                      | : Not available                                                                           |
| Particle shape                                  | : Not available                                                                           |
| Particle aspect ratio                           | : Not available                                                                           |
| Particle specific surface area                  | : Not available                                                                           |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

Bulk density : ≈ 1030 g/cm³

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

alkalis. Nitrites.

### 10.6. Hazardous decomposition products

Ammonia. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                             |                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------|
| Acute toxicity (oral)       | : May be harmful if swallowed.                                                      |
| Acute toxicity (dermal)     | : May be harmful in contact with skin.                                              |
| Acute toxicity (inhalation) | : Not classified (Based on available data, the classification criteria are not met) |

| ammonium sulphate (7783-20-2)     |                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| LD50 oral rat                     | 4250 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 7 day(s))                           |
| LD50 dermal rat                   | > 2000 mg/kg bodyweight (OECD 434: Acute Dermal Toxicity - Fixed Dose Procedure, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| Skin corrosion/irritation         | : Not classified (Based on available data, the classification criteria are not met)<br>pH: ≈ 5                                              |
| Serious eye damage/irritation     | : Not classified (Based on available data, the classification criteria are not met)<br>pH: ≈ 5                                              |
| Respiratory or skin sensitisation | : Not classified (Based on available data, the classification criteria are not met)                                                         |
| Germ cell mutagenicity            | : Not classified (Based on available data, the classification criteria are not met)                                                         |
| 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)                                                         |
| STOT-single exposure              | : Not classified (Based on available data, the classification criteria are not met)                                                         |
| STOT-repeated exposure            | : Not classified (Based on available data, the classification criteria are not met)                                                         |
| Aspiration hazard                 | : Not classified (Based on available data, the classification criteria are not met)                                                         |
| soluAMS® Premium (7783-20-2)      |                                                                                                                                             |
| Viscosity, kinematic              | Not applicable                                                                                                                              |

## 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. Harmful to aquatic life. |
| Hazardous to the aquatic environment, short-term (acute)                            | : Harmful to aquatic life.                                                                                                                       |
| Classification procedure (Hazardous to the aquatic environment, short-term (acute)) | : Calculation method                                                                                                                             |
| Hazardous to the aquatic environment, long-term (chronic)                           | : Not classified (Based on available data, the classification criteria are not met)                                                              |

| ammonium sulphate (7783-20-2) |                                                            |
|-------------------------------|------------------------------------------------------------|
| LC50 - Fish [1]               | 53 mg/l (96 h, Oncorhynchus mykiss, Fresh water)           |
| EC50 - Crustacea [1]          | 169 mg/l (48 h, Daphnia magna, Static system, Fresh water) |

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### 12.2. Persistence and degradability

#### soluAMS® Premium (7783-20-2)

Persistence and degradability

Not applicable for inorganic substances.

#### ammonium sulphate (7783-20-2)

Persistence and degradability

Biodegradability in water: no data available.

### 12.3. Bioaccumulative potential

#### soluAMS® Premium (7783-20-2)

Bioaccumulative potential

Not bioaccumulative.

#### ammonium sulphate (7783-20-2)

Partition coefficient n-octanol/water (Log Kow)

-5.1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)

Bioaccumulative potential

Not bioaccumulative.

### 12.4. Mobility in soil

#### soluAMS® Premium (7783-20-2)

Mobility in soil

No additional information available

Ecology - soil

Not specifically applicable.

#### ammonium sulphate (7783-20-2)

Ecology - soil

No (test)data on mobility of the substance available.

### 12.5. Other adverse effects

Ozone

: Not classified

Other adverse effects

: No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

| UN RTDG                                 | IMDG           | IATA           |
|-----------------------------------------|----------------|----------------|
| <b>14.1. UN number</b>                  |                |                |
| Not regulated for transport             |                |                |
| <b>14.2. UN Proper Shipping Name</b>    |                |                |
| Not applicable                          | Not applicable | Not applicable |
| <b>14.3. Transport hazard class(es)</b> |                |                |
| Not applicable                          | Not applicable | Not applicable |
| Not applicable                          | Not applicable | Not applicable |
| <b>14.4. Packing group</b>              |                |                |
| Not applicable                          | Not applicable | Not applicable |

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### 14.5. Environmental hazards

Dangerous for the environment : No

Dangerous for the environment : No  
Marine pollutant : No

Dangerous for the environment : No

No supplementary information available

### 14.6. Special precautions for user

#### - UN RTDG

No data available

#### - IMDG

No data available

#### - IATA

No data available

### 14.7. Transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

## SECTION 16: Other information

Issue date : 29/01/2021  
Revision date : 29/08/2022  
Supersedes : 29/01/2021

### Full text of H-statements:

|      |                                     |
|------|-------------------------------------|
| H303 | May be harmful if swallowed         |
| H313 | May be harmful in contact with skin |
| H402 | Harmful to aquatic life             |

Safety Data Sheet (SDS) K+S, UN

*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.*