

AMMONIUM SULPHATE

Version 1/ Oct, 2025

1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY	
1.1 Product identifier	
Trade name:	Ammonium sulfate
Other names:	Ammonium sulfate
Chemical name:	Diammonium sulphate
INDEX number as listed in Annex VI of CLP:	Not applicable
ID number of the C&L inventory:	Not listed/ not applicable
CAS number:	7783-20-2
EC number:	231-984-1
REACH registration No Diammonium sulphate	01-2119455044-46-0172
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Uses:	<u>Uses by workers in industrial conditions:</u> Fertilizers; Intermediates; Laboratory chemicals Flame retardants; pH- regulating agents Use in pharmacy, cosmetics, insecticides, herbicides and fungicides. Remarks: Generally, the substance is used in industrial and/or professional settings. The substance is contained in consumer products.
Uses advised against:	No information available.
1.3 Details of the supplier of the safety data sheet	
Importer:	AGROPOLYCHIM AD BULGARIA Industrial zone 9160, DEVNYA Tel: +359 / 519 97 419 URL website: www.agropolychim.bg
Person responsible for the Safety Data Sheet (with e-mail address)	Miroslava Tsvetkova, dipl. eng. AGROPOLYCHIM AD BULGARIA Industrial zone 9160, DEVNYA Tel.: +359 / 519 97 419 Email: m.tsvetkova@agropolychim.bg
1.4 Emergency telephone number	
Emergency phone number in Bulgaria – Toxicology Clinique “Pirogov” Medical Institute:	+359 2 9154 233; +359 2 9154 409 (24 hours / day) Toxicology Clinique, Pirogov National Institute, Sofia
International emergency phone number	112

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2. HAZARDS IDENTIFICATION				
2.1 Classification of the mixture				
Classification in accordance with Regulation (EC) 1272/2008 (CLP).				
Hazard statement(s):	Not classified	---		
2.2 Label elements				
Labelling in accordance with Regulation (EC) 1272/2008 (CLP)				
Hazard pictogram(s):		NA		
Signal word		NA		
Hazard statement(s):	Not classified	---		
Precautionary statement(s):	Not classified	---		
2.3 Other hazards				
PBT/vPvB criteria:		According to Annex XIII of Regulation (EC) № 1907/2006, it was not evaluated for PBT substances and vPvB was of inorganic origin.		
Endocrine disrupting properties:		The substance/mixture does not contain components considered 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 levels of 0.1% or higher.		
Nanoforms:		This product does not contain nanoforms or nanoform-containing substances.		
Other hazards:		Not identified.		
3. COMPOSITION / INFORMATION ON INGREDIENTS				
Substance.				
Chemical name	CAS no.	EC no.	Classification acc. 1272/2008/EO	% content
Diammonium sulphate	7783-20-2	231-984-1	Not classified	c. a. 99.8 %
Occupational exposure limits are given in Section 8. The full text of the hazard statements is described in Section 16.				
4. FIRST-AID MEASURES				
4.1 Description of first aid measures				
Eye contact:		Wash thoroughly with plenty of water for at least 15 minutes. Remove contact lenses.		
Skin contact:		Wash the affected area thoroughly with soap and water. If necessary, remove clothing and wash the affected area thoroughly. If irritation persists, seek medical attention.		

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Ingestion:	In case of ingestion of large quantities, seek medical advice immediately.
Inhalation:	Remove from source of exposure to dusts. In case of illness, seek medical attention.
4.2 Most important symptoms and effects	
Acute effects	Not known
Delayed effects	Not known.
4.3 Indication of any immediate medical attention and special treatment needed	
Note to physician: Inhalation of gases resulting from fire or decomposition containing ammonia may cause respiratory irritation. Delayed lung effects are also possible.	
5. FIRE-FIGHTING MEASURES	
5.1 Extinguishing media	
Suitable extinguishing media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	For this substance/mixture no limitations of extinguishing agents are given.
5.2 Special hazards arising from the substance or mixture	
Nitrogen oxides (NO _x). Sulfur oxides. Not combustible. Ambient fire may liberate hazardous vapours	
5.3 Advice for firefighters	
In the event of fire, wear self-contained breathing apparatus.	
6. ACCIDENTAL RELEASE MEASURES	
6.1 Personal precautions, protective equipment and emergency procedures	
Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.	
6.2 Environmental precautions	
Avoid contamination of water sources and drainage, inform the authorities in case of accidental contamination of water reservoirs.	
6.3 Methods and material for containment and cleaning up	
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.	
6.4 Reference to other sections	
See section 8 for personal protective equipment and section 13 for waste disposal.	
7. HANDLING AND STORAGE	
7.1 Precautions for safe handling	
Technical measures/ Precautions:	Avoid excessive dust generation. Avoid unnecessary exposure to the atmosphere to prevent the absorption of moisture. Avoid contamination with combustible (eg diesel) and lubricants) and / or

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	other incompatible materials. When carrying out loading and unloading activities for a longer period of time, use protective equipment such as gloves and respiratory protection. Carefully clean the equipment and facilities before handing them in for repair and / or inspection.
General occupation hygiene:	Do not eat, drink or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment when leaving contaminated areas.
7.2 Conditions for safe storage, including any incompatibilities	
Technical measures/ Storage conditions:	Store in accordance with national and local regulations. Keep away from heat and flame. Keep away from combustible materials and substances listed in section 10. Make sure the product is not stored near hay, grain, straw, diesel fuel, etc. When stored loose, take the necessary measures to avoid mixing it with other fertilizers. Ensure high standards of storage in warehouses. Do not allow smoking and the use of open lights in storage areas. It is advisable to limit the size of the piles and to keep at least 1 m distance around the piles and packaged products. Any building used for storage must be dry and well ventilated.
Packaging materials:	Synthetic plastic materials - PP / PPE bags and packaging.
RECOMMENDATIONS FOR THE USERS	Minimum time for a person to stay in the warehouses!
Incompatible products:	No data available
8. EXPOSURE CONTROLS / PERSONAL PROTECTION	
8.1 Control parameters	
Regulated occupational exposure limit values:	Not known
Recommended exposure limits for the general public and consumers (as a result of the chemical safety assessment).	There are no identified (measured) exposure limits for the reaction mixture. Based on the measured exposure limits and DNELs obtained on the population and consumers obtained from chemical safety assessments of the individual substances involved, no risk of acute toxicity leading to product classification and labelling has been identified.
8.2 Exposure controls	
Appropriate engineering controls:	The use of adequate ventilation is good industrial practice. Avoid high dust concentrations and provide ventilation where necessary so as to maintain dust concentrations in accordance with national legislation.
Environmental exposure controls:	See section 6.
Individual protection measures, such as personal protective equipment	
Respiratory protection:	If the dust concentration is high and / or the ventilation is inadequate, use suitable dust masks or a respirator with a suitable

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	filter for the corresponding dust concentration (EN 143, 149, R / P filters).
Hands protection:	Suitable gloves (eg leather or rubber) when working with the product for a long time.
Eye protection:	Safety glasses with side shields (EN 166)
Dermal protection:	Protective work clothes
Hygiene measures:	Do not eat, drink or smoke while handling the product. Wash your hands after handling the product and before eating, smoking or using the toilet, as well as at the end of the working day.
RECOMMENDATIONS FOR THE USERS	Machine fertilization with closed doors and windows of the machine cabin is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Colourless granules.
Odour:	Odourless
Melting point/freezing point:	Melting point/ range: > 280 °C
Initial boiling point and boiling range:	Not applicable
Decomposition temperature:	> 235 °C
Flash point:	Not applicable. Do not ignite
Flammability:	Not flammable.
Explosive properties:	Not explosive
Oxidizing properties:	No known oxidizing properties
Vapour pressure at 20°C	< 0.1 x 10 ⁻³ Pa
Relative density:	990-1003 kg/m ³
pH	5,0 - 6 at 132 g/l at 25 °C
Solubility in water:	767 g/l at 25 °C
Partition coefficient n-octanol/water:	Not relevant as the substance is inorganic,
Viscosity:	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Specific conductivity:	No data
Auto flammability / self-ignition temperature:	Based on structure, use and transport information, not expected to be a self-heating substance.
Particle size distribution, 2 - 5 mm:	Over 90 %
Surface tension:	Not applicable (based on structure).

9.2 Other information

Solubility in other solvents: Ethanol - insoluble / Acetone - insoluble

Relative vapor density: Not applicable

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10. STABILITY AND REACTIVITY	
10.1 Reactivity: Corrosivity	
No data available.	
10.2 Chemical stability	
The product is chemically stable under standard ambient conditions (room temperature).	
10.3 Possibility of hazardous reactions	
Exothermic reaction with: chlorates, heat, nitrates. Risk of explosion with: chlorates; Acids nitrates, Potassium nitrates, Acids nitrites sodium hypochlorite Generates dangerous gases or fumes in contact with: alkalines. Possible formation of: Ammonia.	
10.4 Conditions to avoid	
No information available.	
10.5 Incompatible materials	
No data available.	
10.6 Hazardous decomposition products	
In the event of fire: see section 5.	
11. TOXICOLOGICAL INFORMATION	
11.1 Information on toxicological effects	
ACUTE TOXICITY	
Acute oral toxicity:	LD50 Oral - Rat - male and female - 4.250 mg/kg (OECD Test Guideline 401)
Acute dermal toxicity:	LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 434).
Acute inhalation toxicity:	No data available.
CORROSION / SKIN IRRITATION	
Skin irritation:	Skin - Rabbit Result: No skin irritation - 20 h/ Remarks: (ECHA).
Serious eye damage / Eye irritation:	Eyes - Rabbit Result: No eye irritation / Remarks: (ECHA)
Respiratory irritation:	No data available.
RESPIRATORY AND SKIN SENSITIZATION	
Skin sensibilization	Maximization Test - Guinea pig; Result: negative (US-EPA)
Respiratory sensitization	Maximization Test - Guinea pig; Result: negative (US-EPA)
REPRODUCTIVE TOXICITY	No data available.
TOXICITY - REPEATED DOSE	Rat - male - Oral - NOAEL (No observed adverse effect level) - 256 mg/kg

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OTHER ADVERSE EFFECTS	
Mutagenicity:	Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Human lymphocytes Metabolic activation: without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: Micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Intraperitoneal Remarks: (ECHA).
Respiratory irritation:	No data available.
Carcinogenicity:	No data available.
11.2 Additional Information	
Endocrine disrupting properties	The substance/mixture does not contain components considered 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 levels of 0.1% or higher.
The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhoea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, haemolysis. Handle in accordance with good industrial hygiene and safety practice.	
12. ECOLOGICAL INFORMATION	
12.1 Toxicity	
Fish (acute):	LC50 - Oncorhynchus mykiss (rainbow trout) - 53 mg/l - 96 h Remarks: (ECHA)
Fish (Chronic toxicity):	Flow-through test EC10 - Lepomis macrochirus - 5,29 mg/l - 30 d Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Ceriodaphnia (water flea) - 121,7 mg/l - 48 h (US-EPA).
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	Semi-static test EC10 - Daphnia - 3,12 mg/l - 70 d (US-EPA)
Algae:	Static test ErC50 - Chlorella vulgaris (Fresh water algae) - 2.700 mg/l - 18 Days Remarks: (ECHA)
12.2 Persistence and degradability: The methods for determining biodegradability are not applicable to inorganic substances.	
12.3 Bioaccumulative potential: No data available.	

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12.4 Mobility in soil: No data available.	
12.5 Results of PBT and vPvB assessment	
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	
12.6. Endocrine disrupting properties	
The substance/mixture does not contain components considered 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 levels of 0.1% or higher.	
13. DISPOSAL CONSIDERATIONS	
Waste from residues:	Depending on the degree and type of pollution, treat either as a fertilizer for agriculture or as a raw material for the production of liquid fertilizer or treat in authorized facilities. Do not dispose of the material in the sewage system, treat the material and its packaging in a safe manner and in accordance with applicable local and national regulations. See classes 06 03 and 06 10 of the list of wastes (Commission Decision 2000/532 / EC)
Packing / bags:	Clean the emptied packages as well as possible by shaking them carefully. If permitted by local authorities, empty packages may be reused or returned for recycling.
14. TRANSPORT INFORMATION	
UN Number:	ADR/RID: Non classified ADN/ADNR: Non classified IMDG: Non classified ICAO/IATA: Non classified
Proper shipping name:	Not dangerous good
Transport hazard classes:	Not classified
Maritime transport of goods in bulk (MARPOL 73/78; IMO)	Not classified
Packaging group:	Not applicable
Special precautions:	Not identified
15. REGULATORY INFORMATION	
15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture:	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.2 Chemical safety assessment:	For this product a chemical safety assessment was not carried out

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16. OTHER INFORMATION

The information provided in this safety data sheet is accurate, using our best knowledge, beliefs and information as of the date of its publication. This information is provided only as a guide for the safe handling, use, processing, storage, transportation, disposal and discharge, and cannot be considered as a guarantee or quality specification. The information relates only to the specified specific material and may not be valid for such material used in combination with any other materials or derivatives, unless specified in the text.

Hazard statements: (H-phrases):

Not classified.

Classification according to Regulation 1272/2008 as described in Annex VI:

The substance is not classified as dangerous according to Regulation on Classification, Labelling and Packaging of Substances and Mixtures CLP (1272/2008 / EU).

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