

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

1.1	Product identifier	
	Designation:	SPOLSAN® (ammonium sulphate)
	Identification number:	CAS 7783-20-2
	Registration number:	01-2119455044-46-0049
1.2	Relevant identified uses of the substance or mixture and not recommended uses	
	Identified uses:	Use as: intermediate product ingredient in the production of fertilizers laboratory chemical fertilizer in solid and liquid state (professional use) fertilizer used by consumers flame / fire retardant
	Not recommended uses:	Not specified
1.3	Details of the Safety Data Sheet provider	
	Manufacturer:	SPOLANA, a.s.
	Place of business:	Práce 657, 277 11 Neratovice, Czech Republic
	Company registration number:	451 47 787
	Phone:	Phone No.: +420 315 662 555 Fax No.: +420 315 666 633
	Professionally competent person:	Phone No.: +420 315 662 555 Mail: reach@spolana.cz
1.4	Emergency phone number	
	Department of Occupational Medicine of the General University Hospital and 1 st Faculty of Medicine, Charles University Toxicological Information Centre Na Bojišti 1, 120 00, Praha 2 Phone: +420 224 919 293, +420 224 915 402 E-mail: tis@vfn.cz Information concerning health risks only – acute poisoning of humans and animals	

SECTION 2: Hazard identification

	Classification of the substance:	It does not show hazardous properties within the meaning of the Act no. 350/2011 Coll.	
	Harmful effects on health:	It can irritate the respiratory system, skin and eyes. Information is not sufficient for classification.	
	Hazardous effects on the environment.	It may be harmful to aquatic organisms; information is not sufficient for classification.	
2.1	Classification of the substance or mixture		
	Classification as per (EC) 1272/2008:	Codes of hazard classes and categories:	Not classified
		Codes of hazard standard phrases:	–
2.2	Labelling elements		
	Hazard pictogram	not stated	
	Signal word	not stated	
	Hazard standard phrases	not stated	
	Prevention precautionary statements	P210 Keep away from heat. P270 Do not eat, drink or smoke when using this product. P260 Do not breathe dust. P262 Do not get in eyes, on skin, or on clothing.	
2.3	Other hazards: The substance does not meet the criteria for PBT or vPvB substances.		

SECTION 3: Composition / information on ingredients

3.1	Substances			
	SPOLSAN® is an ammonium salt of sulphuric acid. It contains min. 98.5% of ammonium sulphate and a small admixture of ammonium nitrate, the concentration of which does not exceed 1.5 % wt. Ammonium sulphate is adjusted by addition of a hydrophobic mixture (e.g. SK FERT C 1370 - content up to 0.05%). This prevents agglomerating during transport and storage.			
	Main ingredient identifier:	Designation	Ammonium sulphate	
		Identification number	Index number	CAS number
			-	7783-20-2
				EC number
				231-984-1

SECTION 4: First aid instructions

4.1	Description of first aid	
	When giving first aid, the safety of the rescuer and the afflicted is necessary to be ensured first of all! General principles of first aid: Resuscitation should preferably be carried out under life-threatening conditions: the person is not breathing – it is necessary to immediately perform artificial respiration cardiac arrest – it is necessary to immediately start indirect heart massage unconsciousness – it is necessary to place the afflicted person in the recovery position	
4.2	The most important acute and delayed symptoms and effects	
	After inhalation:	Immediately stop the exposure, transport the victim to fresh air (beware of contaminated clothing), secure the afflicted person against hypothermia, seek medical attention
	After skin contact:	Take off contaminated clothing, wash the afflicted area with plenty of lukewarm water, if there is no skin damage (injury) soap may also be used, seek medical attention.
	After eye contact:	Immediately flush eyes with running water, open the eyelids (even use violence), or as the case may be remove contact lenses, rinse for at least 10 minutes and seek medical attention
	After ingestion:	Induce vomiting! Let drink 0.5 l of lukewarm water and induce vomiting again; if possible, administer medicinal charcoal, seek medical attention.
4.3	Instructions concerning immediate medical attention and special treatment	
	Further details about first aid, especially in more serious cases of injury, may be consulted by the treating doctor with the Toxicological Information Centre.	

SECTION 5: Fire-fighting measures

5.1	Extinguishing agents	
	Suitable extinguishing agents:	Conventional extinguishing agents. During firefighting: Remove material from fire site if you can do so without risk. Use extinguishing media suitable for the particular fire. Stand on the windward side of the fire and out of low-lying places. The product is non-flammable. Negligible risk of fire.
	Unsuitable extinguishing agents:	adapt to the substances burning nearby
5.2	Special hazards arising from the substance or mixture	
	Avoid inhalation of combustion products. Thermal decomposition may produce toxic combustion products (e.g. ammonia, nitrogen oxides, and sulphur oxides).	
5.3	Instructions for firefighters	
	During the fire response, use self-contained breathing apparatus as respiratory protective equipment.	

SECTION 6: Accidental release measures

6.1	Personal precautions, protective equipment and emergency procedures
	When handling, reduce dust, do not eat, drink or smoke. After completing work wash yourself thoroughly with soap and warm water. Treat the skin using regenerative cream.
6.2	Precautions to protect environment
	Clean the contaminated area as soon as possible. Prevent pollution of surface water and groundwater.
6.3	Methods and materials for spill containment and for cleaning
	Collect spilled material in an appropriate container for further processing or disposal.

6.4	Reference to other sections sections 8 and 13
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SECTION 7: Handling and storage

7.1	Handling precautions When handling, reduce dust, do not eat, drink or smoke. After completing work wash yourself thoroughly with soap and warm water. Treat the skin using regenerative cream. Spills on a firm surface can cause slipping.
7.2	Conditions for safe storage of substances and mixtures including those incompatible Keep the product in a dry ventilated area with impermeable floor, away from food and feed. Protect it from moisture. Observe the conditions for safe storage of bulk materials. When stored at higher layers it has a tendency to agglomerate due to moisture. Shelf life is 18 months from date of production if the storage conditions are observed. Contact with strong oxidizing agents must be avoided, because it can react with them even explosively. Also its contact with strong alkalis, e.g. hydrated lime, must be prevented. Toxic ammonia is released upon contact with these substances.
7.3	Specific end use / uses The product is used as fertilizer. It is transported by covered means of transport which must be clean and dry, away from food and feed. It comes in bulk.

SECTION 8: Exposure controls / personal protective equipment

8.1	Control parameters Exposure limits by Government decree no. 361/2007 Coll.:				
	Substance (ingredient) designation:	CAS	PEL mg/m ³	NPK-P mg/m ³	Remark
	Not mentioned in the GD no. 361/2007 Coll., as amended.				
	not stated				
	Limit values of biological test indicators (432/2003 Coll., Annex 2):		not stated		
	DNEL	not stated			
	PNEC	not stated			
8.2	Exposure controls When working with the product, dust concentration in the atmosphere must be kept to a minimum level using appropriately designed technical equipment (ventilation, local extraction, etc.).				
	Occupational exposure control				
	Airways protection:	Under the conditions of massive or repeated exposure, a suitable dust respirator should be used to protect the airways.			
	Eye protection:	The workers are required to wear protective goggles or shields.			
	Protection of hands:	using protective gloves with the following specifications:			
		Work activity	Material of gloves	The minimum layer thickness	Penetration time (minutes)
		Routine work with a possibility of staining	Natural latex (KCL-395/403)	1 mm	> 480 min
		Using when disposing of spills and at accidents	Nitrile (KCL-732)	0.4 mm	> 480 min
	Skin protection:	The workers are required to wear suitable protective clothing.			
	Environmental exposure controls Prevent leakage into the environment, water and sewers.				

SECTION 9: Physical and chemical properties

9.1	Information on basic physical and chemical properties	
	Appearance:	SPOLSAN® is a white crystalline substance, which changes to white-grey to pinkish-grey with time. It is very well soluble in water. The contained hydrophobic agent leaves a greasy film on the water surface.
	Odour:	
	Odour threshold:	information not available

pH (at 20°C):	5.5 (solution 0.1 mol/l)
Melting point / solidification point (°C):	information not available
Initial boiling point and boiling range (°C):	information not available
Burning point (°C):	information not available
Evaporation rate:	information not available
Flammability:	information not available
Explosion or flammability limits: upper limit (% vol.):	information not available
lower limit (% vol.):	information not available
Vapour pressure:	information not available
Vapour density:	information not available
Relative density	1.77 g/cm ³ at 20 °C
Solubility:	in water: 71 % insoluble in alcohol, and acetone
Distribution coefficient: n-octanol / water:	information not available
Spontaneous ignition temperature:	343
Decomposition temperature:	above 235 °C
Viscosity:	information not available
Explosive properties:	information not available
Oxidising properties:	information not available
9.2 Other information	When handling the fertilizer, contact with substances that are strong oxidizing agents must be avoided, because it can react with them even explosively. Also contact of the fertilizer with strong alkalis, e.g. hydrated lime, must be prevented. Toxic ammonia is released upon contact with these substances. SPOLSAN® is not approved for use in food and pharmaceutical industries!

SECTION 10: Stability and reactivity

10.1 Reactivity	See hazardous reactions
10.2 Chemical stability	Stable under normal temperature and pressure.
10.3 Possibility of hazardous reactions	AMMONIUM NITRATE + POTASSIUM OR SODIUM – POTASSIUM MIXTURE: may explode BASES: possible heavy reaction CHLORATES: burning and risk of explosion CHLORINE: can explode COPPER AND ITS ALLOYS: can corrode NITRATES: risk of fire and explosion POTASSIUM CHLORATE: decomposition with development of heat POTASSIUM NITRATE: burning and risk of explosion POTASSIUM NITRITE: heavy reaction and inflammation SODIUM HYPOCHLORITE: explosive formation of nitrous chloride may occur ZINC: can corrode
10.4 Conditions to avoid	Inappropriate storage conditions: Keep away from heat, open flames, sparks. Avoid contact with substances having dangerous chemical reaction.
10.5 Materials to avoid	acids, bases, oxidizing materials, metals
10.6 Hazardous decomposition products	Toxic fumes, ammonia, nitrogen oxides and sulphur oxides may be formed during thermal decomposition.

SECTION 11: Toxicological information

11.1	Information on toxicological effects
	<p>Inhalation: Dust may irritate mucous membranes. It may cause respiratory tract irritation, sore throat, and cough. Sulphate suspension concentrations in the air of more than 10 µg/m³ may cause reactions of allergic people.</p> <p>Skin: Dust may irritate sensitive skin. Direct contact may cause irritation with redness.</p> <p>Eyes: Dust may irritate eyes. Direct contact may cause irritation with redness and pain; prolonged exposure can result in conjunctivitis.</p> <p>Ingestion: May cause nausea - sulphate ion causes diarrhoea. Ingestion may cause irritation of the oral cavity, throat pain, stomach pain, nausea and vomiting.</p>
	<p>a) Acute toxicity LDLo = 1,500 mg/kg orally – man (MSDS). LD50 = 2,840 mg/kg orally – sewer rat (MSDS). LD50 = 640 mg/kg orally – mouse (MSDS). LD50 = 610 mg/kg intraperitoneally – mouse (MSDS).</p>
	<p>b) Causticity / irritability for skin information not available</p>
	<p>c) Serious eye damage / irritation information not available</p>
	<p>d) Airways / skin sensitization information not available</p>
	<p>e) Germ cell mutagenicity information not available</p>
	<p>f) Carcinogenicity information not available</p>
	<p>g) Toxicity for reproduction information not available</p>
	<p>h) Toxicity for specific target organs – single exposure information not available</p>
	<p>i) Toxicity for specific target organs – single exposure information not available</p>
	<p>j) Aspiration hazard information not available</p>

SECTION 12: Ecological information

12.1	Toxicity
	<p>Fishes LC50 = 75 500 µg/l 96 hours (Tilapia mossambica)</p>
	<p>Algae 100 µg/l 3 hours (photosynthesis) (Gymnodinium splendens) PHYTOTOXICITY: 40000 µg/l 22 hours (biomass) water-bloom (Potamogeton illinoensis)</p>
	<p>Invertebrates 47320-255270 µg/l NR hours snail (Viviparus bengalensis)</p>
	<p>Bacteria information not available</p>
12.2	Persistence and degradability information not available
12.3	Bioaccumulation potential information not available
12.4	Mobility in soil information not available
12.5	Results of PBT and vPvB assessment information not available
12.6	Other adverse effects Water hazard classification (BRD): WGK = 1

SECTION 13: Disposal considerations

13.1	Waste handling methods
a)	Suitable methods for disposing of the substance or preparation and contaminated containers: Disposed of in accordance with the provisions of the Waste Act. Pass the completely emptied and clean containers for recycling on-site. Not completely emptied container is to be disposed of as the product.
b)	Physical / chemical properties that may affect waste handling method information not available
c)	Preventing waste disposal through sewers information not available
d)	Special precautions recommended for waste handling <i>Czech Republic:</i> Waste Act no. 185/2001 Coll. as amended, Waste Catalogue (Decree no. 381/2001 Coll.) as amended. <i>European Union:</i> Directive of the European Parliament and Council no. 2006/12/EC on waste

SECTION 14: Transport information

	It is not hazardous material in terms of transport.			
14.1	UN number			
14.2	UN proper shipping designation			
	<i>Land transport ADR:</i>			
	<i>Railway transport RID:</i>			
	<i>Maritime transport IMDG:</i>			
	<i>Air transport ICAO/IATA:</i>			
14.3	DGR class/classes			
	<i>Land transport ADR:</i>	<i>Railway transport RID:</i>	<i>Maritime transport IMDG:</i>	<i>Air transport ICAO/IATA:</i>
	Classification code			
	<i>Land transport ADR</i>	<i>Railway transport RID:</i>		
14.4	Packing group			
	<i>Land transport ADR:</i>	<i>Railway transport RID:</i>	<i>Maritime transport IMDG:</i>	<i>Air transport ICAO/IATA:</i>
	Hazard identification number			
	<i>Land transport ADR:</i>			
	Hazard label			
	<i>Land transport ADR:</i>	<i>Railway transport RID:</i>	<i>Maritime transport IMDG:</i>	<i>Air transport ICAO/IATA:</i>
	Remark			
	<i>Land transport ADR:</i>	<i>Railway transport RID:</i>	<i>Maritime transport IMDG:</i>	<i>Air transport ICAO/IATA:</i>
			Marine pollutant: EmS:	PAO: CAO:
14.5	Environmental hazards			
	-			
14.6	Special precautions for the user			
	-			
14.7	Bulk transport according to Annex II of MARPOL 73/78 and the IBC Code			
	Not transported.			

SECTION 15: Regulatory information

15.1	<p>Regulations relating to the safety, health and environment / specific legislation applied to the substance or mixture</p> <p>Act no. 350/2011 Coll., On chemical substances and chemical preparations and on amendment of some laws, as amended Implementing regulations to this Act Act no. 102/2001 Coll., On general product safety, as amended Act no. 185/2001 Coll., On waste, as amended See § 44a of Act no. 258/2000 Coll., Volume 8, paragraphs (6); (8); (9) and (10). Regulation EC no. 1907/2006 (REACH) Regulation EC no. 1272/2008 (CLP)</p>
15.2	<p>Chemical safety assessment</p> <p align="center">-</p>

SECTION 16: Other information

	a)	Changes made in the SDS within its revision Safety Data Sheet in accordance with Regulation (EC) no. 1907/2006										
	b)	Key or legend to abbreviations PBT: persistent, bioaccumulative and toxic substance vPvB: very persistent and very bioaccumulative										
	c)	Important references to literature and data sources Technical databases and other regulations related to chemical legislation. Freely available safety data sheets of the world manufacturers.										
	d)	<table border="1" style="width: 100%;"> <tr> <td colspan="2">List of the relevant standard hazard phrases and/or precautionary statements</td> </tr> <tr> <td style="width: 20%;">P210</td> <td>Keep away from heat.</td> </tr> <tr> <td>P270</td> <td>Do not eat, drink or smoke when using this product.</td> </tr> <tr> <td>P260</td> <td>Do not breathe dust.</td> </tr> <tr> <td>P262</td> <td>Do not get in eyes, on skin, or on clothing.</td> </tr> </table>	List of the relevant standard hazard phrases and/or precautionary statements		P210	Keep away from heat.	P270	Do not eat, drink or smoke when using this product.	P260	Do not breathe dust.	P262	Do not get in eyes, on skin, or on clothing.
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P260	Do not breathe dust.											
P262	Do not get in eyes, on skin, or on clothing.											
	e)	<p>Instructions for training</p> <p>Personnel handling the product have to be instructed about the handling risks and about the health protection and environmental requirements (see the relevant provisions of the Labour Code no. 262/2006 Coll., and Act no. 309/2006 Coll., On further requirements on occupational safety and health). According to Article 35 of the European Parliament and Council (EC) Regulation no. 1907/2006, each employer must enable the workers and their representatives the access to the information contained in the SDS of the substances/preparations, the worker uses or may be exposed to their effects during his work.</p>										
	f)	<p>Other information</p> <p>Disclaimer: The Safety Data Sheet has been prepared in accordance with the Regulation of the European Parliament and Council (EC) no. 1907/2006 (Article 32). The Safety Data Sheet contains the data necessary for ensuring safety and health at work and environmental protection. The mentioned data correspond to the current state of knowledge and experience and are in compliance with the applicable laws and regulations. They cannot be considered as a guarantee of suitability and usability for a specific application. The buyer is responsible for compliance with local laws in force.</p>										