

SECTION 1: Identification of substance / preparation and company / undertaking

1.1	Product identifier	
	Title:	SPOLSAN[®] S (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 non-advised use	
	Intended use:	Use as: intermediate product ingredient in the manufacture of fertilizers laboratory chemicals fertilizer in solid and liquid state (professional use) substance to prevent burning - fire
	Not recommended use:	Not specified
1.3	Details of the supplier of MSDS	
	Producer:	SPOLANA, a.s.
	Place of enterprise or seat:	ul. Práce 657, 277 11 Neratovice, Czech Republic
	Company ID:	451 47 787
	Telephone:	Tel: +420 315 662 555 Fax: +420 315 666 633
	Professionally qualified person:	Tel: +420 315 662 555 Mail: reach@spolana.cz
1.4	Emergency telephone number:	
	Klinika pracovního lékařství VFN a 1. LF UK Toxikologické informační středisko Na Bojišti 1, 120 00, Praha 2 Tel: 224 919 293, 224 915 402 E-mail: tis@vfn.cz Information only for health risks - acute poisoning of humans and animals	

SECTION 2: Identification of risk

	General classification of substance:	The substance is not classified as hazardous	
	Harmful effects on health:	It can irritate the respiratory system, skin and eyes. The information is not sufficient for classification	
	Serious undesired effects on environment:	It can be harmful to aquatic organisms. Information is not sufficient for classification.	
2.1	Classification of the substance or mixture		
	Classification pursuant to (ES) 1272/2008:	Codes of hazard classes and categories:	not classified
		Codes of standard phrases of hazard:	no
2.2	Label elements		
	Warning symbol of risk	not available	
	Signal word	not available	
	Standard hazard phrases	not available	
	Instructions for safe handling	P210 Protect from heat P270 When using this product do not eat, drink or smoke. P260 Do not inhale dust P262 Avoid contact with eyes, skin or clothing.	
2.3	Other risks: not specified		

SECTION 3: Composition/information on components

3.1	Substances			
	SPOLSAN® S is ammonium salt of sulphuric acid. Contains min. 98.5% of ammonium sulphate and a small admixture of ammonium nitrate, whose concentration does not exceed 1.5% by weight.			
	Identifier of the main component:	Title	Ammonium sulphate	
	Identification number	Index number	CAS number	EC number
		-	7783-20-2	231-984-1

SECTION 4: Instructions for the first aid

4.1	First aid description			
	When providing first aid it is necessary to ensure the safety of the rescuer and the rescued! General principles of first aid: In life-threatening conditions resuscitation should be carried out preferably: the affected does not breath - it is necessary to immediately perform artificial breathing cardiac arrest - it is necessary to immediately begin indirect heart massage unconsciousness - it is necessary to place the affected into the recovery position on side			
4.2	The most important acute and delayed symptoms and effects			
	In case of inhalation:	Immediately discontinue exposure, remove the affected to fresh air (be careful of contaminated clothing), secure the affected against cold, seek medical attention		
	In case of skin contact:	Take off contaminated clothing, wash the affected area with plenty of lukewarm water, if possible, in the case of no damage (injury) to the skin, it is possible to use also soap, provide for medical treatment.		
	In case of eye contact:	Immediately flush eyes with running water, spread open the eyelids (even with violence), or remove contact lenses, rinse for at least 10 minutes, obtain medical treatment		
	In case of ingestion:	Induce vomiting! Drink 0.5 liters of lukewarm water and then induce vomiting, if possible, give activated charcoal, obtain medical treatment.		
4.3	Guidelines for immediate medical attention and special treatment			
	Further details on first aid, especially in more serious cases of injury, the attending physician may consult the matter with the toxicological information center			

SECTION 5: Fire extinguishing intervention measures

5.1	Extinguishing agents			
	Suitable extinguishing agents:	Normal extinguishing agents. When fighting a fire: Remove material from the area of fire, if it is possible to do so without risk. Use extinguishing media suitable for the fire. Stand on the windward side of fire and out of low areas. The product is not flammable. Negligible fire hazard.		
	Unsuitable extinguishing agents:	adapt to substances burning in the vicinity		
5.2	Specific hazards arising from the substance or mixture			
	Avoid inhalation of combustion products. Thermal decomposition may form toxic products (eg ammonia, nitrogen oxides, sulphur oxides).			
5.3	Advice for firefighters			
	As protective airway means use self-contained breathing apparatus.			

SECTION 6: Measures in case of accidental leak

6.1	Personal precautions, protective equipment and emergency procedures			
	Reduce dust when handling with the product, do not eat, drink or smoke. After work, wash thoroughly with soap and warm water. Treat skin with regeneration cream.			
6.2	Security measures for environmental protection			
	Clean the contaminated area as quickly as possible. Prevent contamination of surface and groundwater.			
6.3	Methods and materials for containment and cleaning up			
	Collect spilled material in an appropriate container for disposal or further processing.			
6.4	Reference to other sections			

Section 8 and 13

SECTION 7: Handling and storage

7.1	Measures for safe handling Reduce dust when handling with the product, do not eat, drink or smoke. After work, wash thoroughly with soap and warm water. Treat skin with regeneration cream. Spilled material on a firm surface can cause slipping.
7.2	Conditions for safe storage of substances and mixtures including any incompatibilities Store the product in dry ventilated areas with an impermeable floor, away from food and fodder. Protect it from moisture. Observe the conditions for safe storage of bulk materials. When stored in large layers due to moisture it has a tendency to sintering. Shelf life is 12 months from date of manufacture in compliance with the conditions of storage. It is necessary to avoid contact with strong oxidizing agents, because they can react explosively. It is further necessary to avoid contact with strong alkaline products, such as hydrated lime. In contact with these substances toxic ammonia is released.
7.3	Specific final / specific end uses The product is used as a fertilizer. It is transported in covered means of transport, which must be clean and dry, away from food and fodder. It is supplied in bulk.

SECTION 8: Exposure control and personal protection aids

8.1	Control parameters Exposure limits according to Government Regulation No. 361/2007 Coll.:			
	Substance name (components):	CAS	PEL mg/m ³	NPK-P mg/m ³
	Not in the Government Decree No. 361/2007 Coll., as amended			
	not listed			
	Limit values of biological test indicators (432/2003 Coll., Annex 2):	not specified		
	DNEL	not specified		
	PNEC	not specified		
8.2	Limiting of exposure When working with the product, the concentration of dust in the air must be kept to a minimum by using properly designed technical equipment (ventilation, local exhaust ventilation, etc.).			
	Limiting of exposure of workers			
	Protection of air ways:	Under conditions of massive or repeated exposure it is necessary to use dust respirator for protection of airways.		
	Eye protection:	Workers are required to wear safety goggles or face shield.		
	Hands protection:	using gloves with the following specifications:.		
		Work activity	Material of gloves	Minimum layer thickness
		Breakthrough time (minutes)		
		Routine work activity with the risk of staining	Natural rubber latex (KCL-395, 403)	1 mm
		Use in liquidation of leakages and accidents	Nitrile (KCL-732)	0.4 mm
	Skin protection:	Workers are required to wear suitable protective clothing.		
	Limitation of exposure of environment Avoid release to the environment, water and sewerage.			

SECTION 9: Physical and chemical properties

9.1	Information on basic physical and chemical properties			
	Appearance:	SPOLSAN [®] S is a crystalline white substance, which changes over time in white grey to ping-grey. Very soluble in water.		
	Odour:			
	Odour threshold:	Information not available		
	pH value (at 20°C):	5.5 (solution 0.1 mol/l)		

Melting point / freezing point (°C):	Information not available
Initial boiling point and boiling range (°C):	Information not available
Ignition point (°C):	Information not available
Evaporation rate	Information not available
Flammability:	Information not available
Fire or explosion limits: upper limit (% by volume):	Information not available
lower limit (% by volume):	Information not available
Steam 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, acetone
Partition coefficient: n-octanol/water:	Information not available
Autoignition temperature:	343
Decomposition temperature:	over 235 °C
Viscosity:	Information not available
Explosion properties:	Information not available
Oxidation properties:	Information not available
9.2 Other information	When handling with the fertilizer it is necessary to avoid contact with substances that are strong oxidizing agents, because they can react explosively. It is further necessary to avoid contact with strong alkaline products, such as hydrated lime. In contact with these substances toxic ammonia is released. SPOLSAN® S is not approved for use in food and pharmaceutical industry!

SECTION 10: Stability and reactivity

10.1 Reactivity	See hazardous reactions
10.2 Chemical Stability	It is stable under normal temperature and pressure.
10.3 Possibility of hazardous reactions	AMMONIUM NITRATE + POTASSIUM OR SODIUM - POTASSIUM MIXTURE: can explode PRINCIPLES: possible severe reaction CHLORATES: fire and explosion hazard CHLORINE: can explode COPPER AND ITS ALLOYS: may corrode NITRATES: the risk of fire and explosion POTASSIUM PERCHLORATE: decomposition with evolution of heat POTASSIUM NITRATE: fire and explosion hazard POTASSIUM NITRITE: rapid reaction with flare-up SODIUM HYPOCHLORITE: there can be an explosive emergence of nitrogen trichloride ZINC: can corrode
10.4 Conditions that have to be avoided:	Inappropriate storage conditions: Do not expose to heat, open flames, sparks. Avoid contact with substances with a dangerous chemical reaction.
10.5 Incompatible materials	acids, bases, oxidizing materials, metals
10.6 Dangerous decomposition products	Thermal decomposition may form toxic products (eg ammonia, nitrogen oxides, sulphur oxides).

SECTION 11: Toxicological information

11.1	Information on toxicological effects
	<p>Inhalation: Dust may irritate the mucous membranes. May cause respiratory tract irritation, sore throat, cough. Levels above 10 µg/³ sulphate suspension in the air can cause reactions in 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 may result in conjunctivitis.</p> <p>Ingestion: May cause stomach nausea - sulphate ion causes diarrhoea. Ingestion may cause irritation of mouth, sore throat, stomach pain, nausea and vomiting.</p>
	<p>a) Acute toxicity LDLo = 1500 mg / kg orally human (MSDS). LD50 = 2840 mg / kg orally, rat (MSDS). LD50 = 640 mg / kg orally, mouse (MSDS). LD50 = 610 mg/kg intraperitoneally, mouse (MSDS).</p>
	<p>b) Corrosiveness / irritation effect on skin Information not available</p>
	<p>c) Serious eye damage / eye irritation Information not available</p>
	<p>d) Respiratory / skin sensitization Information not available</p>
	<p>e) Mutagenicity in germ cells Information not available</p>
	<p>f) Carcinogenicity Information not available</p>
	<p>g) Toxicity for reproduction Information not available</p>
	<p>h) Toxicity to specific target organs - single exposure Information not available</p>
	<p>i) Toxicity to specific target organs - single exposure Information not available</p>
	<p>j) Aspiration hazard Information not available</p>

SECTION 12: Environmental information

12.1	Toxicity
	<p>Fish LC50 = 75500 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 flower (Potamageton 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 Information not available
12.6	Other adverse effects Water hazard classification (BRD): WGK = 1

SECTION 13: Instructions for removal

13.1	Methods of waste management	
	a)	Appropriate methods for substance or preparation removal and removal of contaminated packages: Dispose of in accordance with the provisions of the Waste Act. Completely empty and clean containers are to be submitted in the place for recycling. Dispose of non-emptied packages as product.
	b)	Physical / chemical properties that may influence the waste management method Information not available
	c)	Elimination of waste disposal through sewer Information not available
	d)	Specific safety measures for recommended waste management
		<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 European Parliament and Council 2006/12/EC on waste

SECTION 14: Transport information			
Not dangerous goods for transport.			
14.1	UN Number		
14.2	UN proper name for shipment		
	<i>Land transport ADR</i>		
	<i>Railway transport RID</i>		
	<i>Sea transport IMDG:</i>		
	<i>Air transport ICAO / IATA:</i>		
14.3	Class / classes of hazards for transport		
	<i>Land transport ADR</i>	<i>Railway transport RID</i>	<i>Sea transport IMDG:</i>
			<i>Air transport ICAO / IATA:</i>
	Classification code		
	<i>Land transport ADR</i>	<i>Railway transport RID</i>	
14.4	Packaging group		
	<i>Land transport ADR</i>	<i>Railway transport RID</i>	<i>Sea transport IMDG:</i>
			<i>Air transport ICAO / IATA:</i>
	Hazard identification number		
	<i>Land transport ADR</i>		
	Safety mark		
	<i>Land transport ADR</i>	<i>Railway transport RID</i>	<i>Sea transport IMDG:</i>
			<i>Air transport ICAO / IATA:</i>
	Note		
	<i>Land transport ADR</i>	<i>Railway transport RID</i>	<i>Sea transport IMDG:</i>
			<i>Air transport ICAO / IATA:</i>
		Substance contaminating sea:	PAO:
		EmS:	CAO:
14.5	Environmental hazards		
	no		
14.6	Special safety precautions for user		
	no		
14.7	Transportation in accordance with Annex II of MARPOL 73/78 and the IBC Code		
	is not transported		

SECTION 15: Information about regulations



SAFETY DATA SHEET
pursuant to (ES) 1907/2006 Art. no. 32
SPOLSAN® S

Date of issue: 15th of May 2011
Date of revision: 25th of May 2015
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15.1	Regulations relating to safety, health and environmental regulations / legislation specific regulations relating to the substance or mixture Act No. 350/2011 Coll. On chemical substances and chemical preparations and amending of some Acts in valid wording Implementing regulations to this Act Act No. 102/2001 Coll. on general product safety, as amended Act No. 185/2001 of Coll. On waste, as amended EC Regulation 1907/2006 (REACH) EC Regulation 1272/2008 (CLP)
15.2	Chemical Safety Assessment no

SECTION 16: Other information

a)	Changes made in the MSDS within the revision no								
b)	Key or legend to abbreviations no								
c)	Important references to literature and data sources Specialized databases and other regulations related to chemical legislation. Freely available safety data sheets of global manufacturers.								
d)	List of relevant hazard standard risk phrases and / or instructions for safe handling <table border="1"><tr><td>P210</td><td>Keep away from heat</td></tr><tr><td>P270</td><td>When using this product do not eat, drink or smoke.</td></tr><tr><td>P260</td><td>Do not inhale dust</td></tr><tr><td>P262</td><td>Avoid contact with eyes, skin or clothing.</td></tr></table>	P210	Keep away from heat	P270	When using this product do not eat, drink or smoke.	P260	Do not inhale dust	P262	Avoid contact with eyes, skin or clothing.
P210	Keep away from heat								
P270	When using this product do not eat, drink or smoke.								
P260	Do not inhale dust								
P262	Avoid contact with eyes, skin or clothing.								
e)	Instructions for training Persons handling the product must be aware of potential risks to life and health in handling and requirements for protection of health and the environment (see the relevant provisions of the Labour Code No. 262/2006 Coll. And Act No. 309/2006 Coll.).								
f)	Other information Declaration: Material Safety Data Sheet has been prepared in accordance with Regulation of the European Parliament and Council (EC) No. 1907/2006 (Art. No. 32). The MSDS contains information necessary for ensuring protection of safety and health at work and environmental protection. The above mentioned data correspond to the current level of knowledge and are in compliance with valid legal regulations. They can not be considered guarantee of suitability and usability of the product of concrete application. Compliance with regional legislation falls within the responsibility of the purchaser.								