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

1.1 Product identifier

Trade name:	**SULPHURIC ACID technical 94 – 96,5%**
International chemical name / CAS Number	Sulphuric acid/ 7664-93-9
Identification number:	016-020-00-8
Registration number:	01-2119458838-20-0022

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	**Uses by workers in industrial settings**
1	Production of sulphuric acid
2	Use of sulphuric acid as an intermediate in manufacture of inorganic and organic chemicals incl. fertilizers
3	Use of sulphuric acid as a processing aid, catalyst, dehydrating agent, pH regulator
4	Use of sulphuric acid for extractions and processing of minerals, ores
5	Use of sulphuric acid in the process of surface treatments, purification and etching
6	Use of sulphuric acid in electrolytic processes
7	Use of sulphuric acid in gas purification, scrubbing, flue gas scrubbing
8	Use of sulphuric acid in production of sulphuric acid contained batteries
9	Use of sulphuric acid in maintenance of sulphuric acid contained batteries
10	Use of sulphuric acid in recycling of sulphuric acid contained batteries
11	Use of sulphuric acid contained batteries
12	Use of sulphuric acid as laboratory chemicals
13	Use of sulphuric acid in industrial cleaning
14	Mixing, preparation and repackaging of sulphuric acid
	Uses by professional workers
	Uses by users
Uses advised against:	Sulphuric acid is always added to water, not vice versa, slowly and while stirring continuously.

1.3 Details of the supplier of the safety data sheet

Manufacturer:	SPOLANA a.s.
Registered office:	SPOLANA a.s., ul. Práce 657, 277 11 Neratovice
Company ID:	451 47 787
Telephone:	Tel: +420 315 662 555 Fax: +420 315 666 633
Competent person responsible:	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: +420 224 919 293, +420 224 915 402
E-mail:tis@vfn.cz

Information only for health risks - acute poisoning of humans and animals

SECTION 2: Hazards identification

	Classification of the substance:	Substance is classified as skin corrosion/irritation and Hazard Category 1A	
	Dangerous health effects:	Causes severe burns - bruising of the ingestion, respiratory tract burns, skin burns, eye burns, burn of moist mucous membranes.	
	Dangerous environmental effects.	Strong corrosive. Harmful to water.	
2.1	**Classification of the substance or mixture**		
	Classification according to (EC) 1272/2008:	Codes for hazard classes and categories	Skin Corr. 1A; H314; C ≥ 15 %; note B
		Hazard Codes phrase	H314
2.2	**Label elements**		
	Hazard pictogram(s):		
	Signal word:	Danger	
	Hazard statement(s):	H314 Causes severe skin burns and eye damage.	
	Precautionary statement(s):	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	
2.3	**Other hazards** EUH014 Reacts violently with water. Avoid product misuse! It may react violently with water (watch out for the production of heat). It may ignite flammable substances. It may enter into reaction with air, heat or light. When mixing it with water, make sure the temperature of the solution does not grow excessively. **Sulphuric acid is always added to water, not vice versa,** slowly and while stirring continuously. When using sulphuric acid to disinfect objects and surfaces in the food industry, then the surface should be thoroughly (several times) rinsed with potable water.		

SECTION 3: Composition/information on ingredients

3.1	**Substances**				
	The major component identifier:	Name.	Sulphuric acid technical H_2SO_4 94 – 96,5%		
		Identification number:	Index number	CAS number	EC number
			016-020-00-8	7664-93-9	231-639-5

SECTION 4: First aid measures

4.1 Description of first aid measures

General first aid principles:

In life threatening situations the administration of resuscitation is a priority
The victim does not breathe - administer artificial respiration immediately
Heart arrest - administer cardiac massage immediately
Unconsciousness - put the victim in a stabilized position on his/her side

	Inhalation:	Move exposed person to fresh air. Get medical attention immediately. Depending on a specific situation, rinse the mouth or nose with water. Take off the clothes if they are contaminated. Keep person warm and at rest. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Skin contact:	Get medical attention immediately. Remove contaminated clothing and shoes. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Cover affected (burnt) skin areas with a sterile bandage. Chemical burns have to be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Eye contact:	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open with your fingers (even forcibly), remove contact lens, if any and if you can remove it easily. Seek immediate medical attention. Even minor contaminations of employees must be referred to a doctor.
	Ingestion:	Do not induce vomiting! This could pose risk of alimentary tract perforation! Rinse mouth immediately and then drink plenty of water. Have the victim drink 2-5 dl of as cold as possible water (ice cold) immediately to alleviate the thermal effects of the caustic agent. Because its effects on the mucosa are nearly instantaneous, even tap water can be used for the sake of expeditiousnes. Do not force him/her to drink anything. Do not let the victim eat. Do not administer medicinal charcoal. Get medical attention immediately.
4.2	**Most important symptoms and effects, both acute and delayed**	
	Inhalation:	Respiratory tract irritation.
	Skin contact:	chemical burns of the skin
	Eye contact:	chemical burns of the eyes
	Ingestion:	harmful by swallowing, chemical burns of the respiratory tract and mucosa
4.3	**Indication of any immediate medical attention and special treatment needed** In case of any health problems or when in doubt seek medical aid.	

SECTION 5: Firefighting measures

5.1	**Extinguishing media**	
	Suitable extinguishing media	Small amounts: use water spray (fog), foam, dry chemical or CO2 Large volumes: Use heavy and medium foam; apply water mist from safe distance. Fire fighting: Remove the material from the fire area, providing it can be done safely. Use only suitable extinguishing means. Stand on the windward side of the fire and out of low-situated places. Cool the containers with water mist until the fire is extinguished. Use water spray to absorb leaking corrosive vapors.
	Unsuitable extinguishing media:	The container must not be penetrated with water. Prevent a full stream of water from contact with the spilt material.

5.2	**Special hazards arising from the substance or mixture** In a fire or if heated, a pressure increase will occur and the container may burst. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Do not inhale combustion products. Thermal decomposition may produce toxic products (for instance sulphur oxides). Sulphuric acid is inflammable. It presents a marginal risk of fire if the product is exposed to heat or flames. It decomposes oxidation agents, especially if they are heated, producing oxygen or other gases accelerating the combustion of flammable materials. Contact with easy to, organic or other flammable substances can lead to ignition, vigorous combustion or explosion.
5.3	**Advice for firefighters** Decomposition products may include the following materials: sulphur oxides Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1	**Personal precautions, protective equipment and emergency procedures** Personal precautions: Keep unauthorized people outside the affected area. Isolate the hazardous area and prohibit entry. Ventilate the affected area before entering it. Inform a local emergency center. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment (see section 8). Prevent direct contact with Sulphuric acid. Do not touch the material leaking out of packaging units. Separate flammable materials (wood, paper, oil, etc.) from the spilt substance.
6.2	**Environmental precautions** Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers if it can be done without taking any personal risks. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air) Clean the contaminated area as soon as possible. Soil contamination: Dig out capture areas such as lagoons or ponds to contain the leaking material. Cover them with plastic tarpaulins to minimize the spread of the leaking pollutant. Prevent contact with water.
6.3	**Methods and material for containment and cleaning up** LARGE SPILL: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. SMALL SPILL: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up or absorb with an inert dry material (in sand or other incombustible materials) and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor (for further neutralization that can be achieved by using hydrated lime, ground limestone or soda.)
6.4	**Reference to other sections** Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7: Handling and storage

7.1	**Precautions for safe handling** When handling and storing the product keep valid safety regulations regarding work with caustic agents. Put on appropriate personal protective equipment. Do not get in eyes or on skin or clothing. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from water and alkalis. Empty containers retain product residue and can be hazardous.

7.2	**Conditions for safe storage, including any incompatibilities** Store in accordance with local regulations. Store in original sealed acid-resistant container in a dry, cool and well ventilated area, protected from direct sunlight or frost (lower temperatures presents the risk of Sulphuric acid freezing. Melting/freezing point : -13.89 to -10°C (96% sulphuric acid) The melting point varies with the acid strength. Keep away from incompatible materials (carbides, chlorates, nitrates, picrates, and metal powder) and food and drink, alkalis, water and combustible materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Remark: Vent waste air only via suitable separators or scrubbers.
7.3	**Specific end use(s)** When using sulphuric acid to disinfect objects and surfaces in the food industry, then the surface should be thoroughly (several times) rinsed with potable water.

SECTION 8: Exposure controls/personal protection

8.1 **Control parameters**

The national occupational exposure limit values according to Government decree No. 361/2007 Sb.

Name of substance (component(s)):	CAS	8-hours limit PEL [mg/m^3]	Short-term limit NPK-P [mg/m^3]	Note
H_2SO_4 (like fog)	7664-93-9	0.05		
H_2SO_4 (like SO_3)	7664-93-9	1	2	
SO_3	7446-11-9	1	2	
SO_2	7446-09-5	1.5	5	

PEL- admissible exposure limit of the chemical substance in the working environment
NPK-P- maximum admissible exposure limit of the chemical substance in the working environment

Occupational exposure limit values according to Directives 39/2000/EC and 15/2006/EC

Name of substance (component(s)):	CAS	8-hours limit TWA[mg/m^3]	Short-term limit STEL[mg/m^3]	Note
		Not determined	Not determined	

8-hour limit - measured or calculated limit related to an 8-hour reference period as a time-weighed average
Short-term limit – limit value corresponding to 15 minutes; if exceeded exposure should be avoided

Recommended monitoring procedures:
Use detection equipment – multi-detectors of gases (SO2, SO3), detection tubes, laboratory analytical scale (e.g. NIOSH 7903 defines the determination of the aerosol of sulphuric acid in the working environment by taking a sample on a tube and processing it by means of ion chromatography)

The national biological limit values: not determined

DNEL	
Worker, Long-term exposure - local effects, Inhalation:	0.05 mg/m³
Acute - local effects, Inhalation	0.1 mg/m³
PNEC	
PNEC aqua (freshwater):	0.0025 mg/L
PNEC aqua (marine water):	0.00025 mg/L
PNEC aqua (intermittent releases):	Not relevant
PNEC sediment (freshwater):	0.002 mg/kg wwt
PNEC sediment (marine water):	0.002 mg/kg wwt
PNEC soil:	Not relevant
PNEC STP:	8.8 mg/L

8.2 Exposure controls

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Whenever the affection of the employees appears to be likely, the working area must be equipped with a water fountain to rinse the eyes and with a safety shower (with at least a minimum appropriate water flow) in the event that first aid has to be administered.

Minimize the production of aerosols during handling. Take appropriate technical measures to make sure that the maximum admissible concentration (NPK-P) in the working environment is not exceeded.

Employees must be provided with means of personal protection (working clothes resistant to acids, face shield or goggles, rubber apron, rubber gloves, rubber boots).

Where the NPK-P standard cannot be met, the respiratory tract must also be protected for instance by wearing a protective mask with an appropriate filter eliminating acidic vapors and aerosols. All the means of personal protection must always be kept in a fit-to-use condition; if damaged, they must be replaced.
In addition, direct contact with acid must be prevented.

When working in laboratory conditions, observe the requirements of ČSN 01 8003, above all use so-called safety pipettes for pipeting. Also, observe corrosive handling regulations.

Personal protective equipment:

Respiratory protection:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Combination filter, e.g. DIN 3181 ABEK or selfcontained breathing apparatus (SCBA)
Eye protection:	Employees are obliged to wear safety eyewear complying with an approved standard when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Hand protection:	Protective gloves with these specifications:

Working activity	Glove material	Minimum layer thickness	Time of penetration (minutes)
Common working activities with the possible risk of contamination	Natural latex (KCL-706) Natural latex (KCL-403) Nitril (KCL-732)	0.6 mm 1.0 mm 0.4 mm	> 10 min > 30 min > 30 min
Use during the liquidation of leaks and during accidents	Viton (KCL-890)	0.7 mm	> 480 min

Note: The gloves used must comply with the requirements of EU 89/686/EEC and standard EN 374.
The table presents the laboratory-detected data of the company KCL (catalog values). The values apply to the above-specified types of protective gloves. When different, equivalent types of glove are used, the same data have to be obtained from their supplier.

Skin protection:	Employees are obliged to wear appropriate protective clothes to prevent contact with the product. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: chemical-resistant protective suit

Environmental exposure control:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Do not discharge into the sewer system, surface water and soil.

SECTION 9: Physical and chemical properties		
9.1	**Information on basic physical and chemical properties**	
	Appearance	Colourless to brown, viscous liquid.
	Odour:	odourless
	Odour threshold:	No data available.
	pH (at 20°C):	Varies with the acid strength.
	Melting point/freezing point (°C):	-13.89 to -10°C (96% sulphuric acid) The melting point varies with the acid strength.
	Initial boiling point and boiling range (°C):	330°C (boiling point increases as the acid strength increases to a maximum at around 97-98%)
	Flash point (°C):	Not applicable
	Evaporation rate:	Not applicable
	Flammability (solid, gas):	Non-flammable
	Upper/lower flammability: or explosive limits upper (% vol.):	
	lower (% vol.):	
	Vapour pressure:	6 Pa at 20°C (90% sulphuric acid)
	Vapour density:	Not applicable
	Relative density:	1.84 g/cm3 at 20 °C for 96% sulphuric acid (1.8144-1.8305 kg/L (90-100% sulphuric acid))
	Solubility:	Sulphuric acid is miscible with water. In contact with water it becomes diluted while producing substantial heat.
	Partition coefficient n-octanol/water:	Not relevant for ionisable substances.
	Auto-ignition temperature:	Not applicable
	Decomposition temperature:	340°C
	Viscosity:	Viscosity at 20°C: 22.5 mPas (dynamic) (95% sulphuric acid)
	Explosive properties:	Not expected to possess explosive properties (but it may ignite flammable substances or it may cause their explosion).
	Oxidising properties:	does not meet the criteria for classification as an oxidiser but has oxidation properties (concentrated acid)
	Stability in organic solvents and identity of relevant degradation products	Not considered critical for an inorganic acid.
	Dissociation constant	pKa 1.92 at 20°C
9.2	**Other information**	
	Not expected to be surface active.	

SECTION 10: Stability and reactivity	
10.1	**Reactivity** Highly reactive with water and alkalis.
10.2	**Chemical stability** The product is stable under standard conditions.
10.3	**Possibility of hazardous reactions** Under conditions of storage and use, hazardous reactions will not occur.
10.4	**Conditions to avoid** Highly reactive with water and alkalis. Keep away from the substances with which it enters into dangerous chemical reaction. It may make flammable materials (paper, oil, etc.). ignite. It reacts violently with water. Flammable toxic gases may become accumulated in cramped areas. Leaks into sewerage may create a risk of fire or explosion (dangerous products of decomposition).

10.5	**Incompatible materials** Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Make sure the substance is separated from carbides, chlorates, nitrates, picrates, and metal powders and alkalis, water, combustible materials. Hazardous chemical reaction: Alkalis: violent reaction acetone and nitric acid: violent degradation Acetone and sodium dichromate: Ignition Alcohols: exothermic reaction and volume contraction Alcohols and hydrogen peroxide: possible explosion Allyl chloride: violent polymerization Basis: violent reaction Bromate and metals: possible ignition Carbides: dangerous mixes Chlorates: all chlorates – when in contact with sulphuric acid – may release explosive chlorine dioxide; violent reaction is common Chlorates and metals: possible ignition Chromates: fire and explosion hazards Flammable materials (finely separated): possible ignition Copper: development of sulphur dioxide Hydrogen peroxide (more than 50%): explosive reaction after vaporise Mercury nitride: explosion on contact Metals: attacks many metals producing extremely flammable hydrogen gas (can form explosive mixtures with air) Metal (powders): extremely dangerous mixture Acetylides of metals: ignition Perchlorates of metals: formation of explosive perchloric acid Nitrates: Incompatible Nitric acid + glycerides: explosion Nitric acid + organic material: it may cause a violent reaction perchlorates: a possible explosion Potassium permanganate + potassium chloride: a violent explosion Sodium: explosive reaction with aqueous acid Sodium carbonate: a violent reaction sucrose: formation of carbon monoxide
10.6	**Hazardous decomposition products** Thermal decomposition produces oxides of sulphur. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

a) ***Acute toxicity***
LD50 Oral = 2140 mg/kg bw; LC50 Inhal = 375 mg/m3 air

b) ***Skin corrosion/irritation***
Sulphuric acid is listed on Annex VI List of harmonised classification and labelling of hazardous substances according to Regulation (EC) No 1272/2008 with classification as Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2

c) ***Serious eye damage/irritation***
See section b) above

d) ***Respiratory or skin sensitisation***
No classification is proposed for skin sensitisation or respiratory sensitisation based on the absence of any findings in exposed humans following occupational use over a long period of time.

e) ***Germ cell mutagenicity***
No classification is proposed for genotoxicity. None in vivo studies are available, however the absence of systemic exposure to the substance and the lack of genotoxicity of the hydrogen and sulphate ions means that no genotoxicity is predicted and testing is not required.

f)	***Carcinogenicity*** A number of studies (using various animal species) have not demonstrated any carcinogenic effect of inhalation exposure to sulphuric acid mists.
g)	***Reproductive toxicity*** No studies of the effects of sulphuric acid exposure on fertility have been identified.
h)	***Specific target organ toxicity (STOT)– single exposure*** While the studies performed with sulphuric acid clearly show the potential for toxicity following repeated/prolonged exposure to low concentrations, there is clearly **no potential for systemic toxicity** and the effects seen in these studies are essentially a consequence of **the local corrosivity/irritancy**.
i)	***Specific target organ toxicity (STOT)– repeated exposure*** Classification for severe effects after repeated or prolonged exposure is not proposed. See section h) above
j)	***Aspiration hazard*** The substance does not meet classification criteria.

SECTION 12: Ecological information	
12.1	**Toxicity** Not classified as CMR and PBT or vPvB substance and does not meet the classification criteria for environmental hazards.
	Fish LC50 for freshwater fish: 16 mg/L; long term toxicity for NOEC (LOEC/2) freshwater fish: 0.025 mg/L
	Algae EC10/LC10 or NOEC for freshwater algae: 100 mg/L
	Daphnia EC50 for freshwater invertebrates: 100 mg/L; long term toxicity for freshwater invertebrates NOEC: 0.15 mg/L
	Bacteria Available non-standard data for the read-across compound sodium sulphate report NOECs for bacteria in sewage sludge of 26 -30 g/L.
12.2	**Persistence and degradability** Not biodegradable (inorganic acids cannot be considered biodegradable) Sulphuric acid has no potential to persist. Sulphuric acid dissociates readily to hydrogen (hydronium) ions and sulphate ions, both of which are ubiquitous in biological systems.
12.3	**Bioaccumulative potential** Sulphuric acid has no potential to bioaccumulate. Sulphuric acid dissociates readily to hydrogen (hydronium) ions and sulphate ions, both of which are ubiquitous in biological systems.
12.4	**Mobility in soil** Not applicable. Given the rapid breakdown in water of sulphuric acid and the very limited atmospheric emissions there is no significant exposure to soil or groundwater expected. There is no direct exposure via sludge spreading.
12.5	**Results of PBT and vPvB assessment** Sulphuric acid is neither a PBT nor a vPvB substance.
12.6	**Other adverse effects** Other ecotoxicological advice: Do not release untreated into natural waters.

SECTION 13: Disposal considerations – in accordance with national directions	
13.1	**Waste treatment methods**
	a) Possible hazards in disposing of the substance and contaminated packaging Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
	b) Physical/chemical properties that may affect waste treatment corrosive
	c) Avoiding waste disposal through sewerage Do not release untreated into natural waters.

	d) Special precautions for any recommended waste treatment Czech Republic: Waste Act No. 185/2001 Sb., as annotated, waste catalog (decree No. 381/2001 Sb.) as annotated. European Union: Directive of the European Parliament and Council No. 2006/12/ES on waste

SECTION 14: Transport information

UN 1830 SULPHURIC ACID

14.1 UN number

1830

14.2 UN proper shipping name

ADR	SULPHURIC ACID
RID	SULPHURIC ACID
IMDG:	
ICAO/IATA:	

14.3 Transport hazard class(s)

ADR	*RID*	*IMDG:*	*ICAO/IATA:*
8	8	8	8

Classification

ADR	*RID*
C1	C1

14.4 Packing group

ADR	*RID*	IMDG:	*ICAO/IATA:*
II	II	II	II

Hazard Identification No. (Kemler)

ADR
80

Labels

ADR	*RID*	*IMDG:*	*ICAO/IATA:*
			

Note

ADR	*RID*	*IMDG:*	*ICAO/IATA:*
		Marine pollutant: EmS:	PAO: CAO:

14.5 Environmental hazards

No

14.6 Special precautions for user

No

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation of the European Parliament and Council (EC) No. 1907/2006 REACH
Regulation (EC) 1272/2008 on classification, labelling and packaging (CLP) of substances and mixtures

15.2 Chemical safety assessment

Chemical safety assessment was carried out.

SECTION 16: Other information

a) The changes in case of a revised safety data sheet
New safety data sheet according to Annex II Regulation (EC) 1907/2006

b) A key or legend to abbreviations and acronyms

PBT : Persistent, bioaccumulative and toxic.
vPvB : Very persistent and very bioaccumulative.
Skin Corr. 1A Skin corrosion/irritation, Hazard Category 1A

c) Key literature references and sources for data

Regulation of the European Parliament and Council (EC) No.1907/2006
Registration documentation according to Direction (EC) 1907/2006 REACH
Appendix I, IV, VI a VII from Direction (EC) 1272/2008 CLP as annotated

Act No. 350/2011 Sb. on chemical substance and on chemical preparations and on changes in certain laws, as annotated
Act No. 258/2000 Sb. on the protection of public health and on changes in certain related laws, as annotated
Governmental decree No. 361/2007 Sb., that stipulates the conditions of protecting employees' health at work

d) **List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements**

H-phrases	H314 Causes severe skin burns and eye damage EUH014 Reacts violently with water.
P-phrases	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

e) Training appropriate for workers

People handling the product must be informed about the risk of possible life and health hazards and about requirements for the protection of health and environment (see the respective provisions of Labor Code)

f) More information

Safety Data Sheet has been prepared in accordance with the Regulation of the European Parliament and Council Regulation (EC) no. 1907/2006. Safety Data Sheet contains data necessary for ensuring safety and health at work and environmental protection. These data correspond to the current state of knowledge and experience and are in compliance with applicable laws and regulations. They cannot be considered a guarantee of suitability for a specific application. For compliance with local laws in force in the responsibility of the buyer.
According to Article 35 of the European Parliament and Council Regulation (EC) no. 1907/2006 requires each employer to enable workers and their representatives access to the information from MSDS substances / preparations, the worker uses or whose effects may be exposed during their work.