SPECTRASCAN®

MATERIAL SAFETY DATA SHEET

Revision Number 1, Revision Date January 08, 2007

according to EC Directive 2001/58/EC

SS-1152, SS-1252, SS-1552

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code SS-1152 S

Product name 1000 ug/mL Sulfur Common Name Sulfur in Water Manufacturer, importer, supplier Teknolab

P.O. Box 33 1411 Kolbotn Norway

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Emergency telephone number 800-424-9300 CHEMTREC (24 hrs)

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% Weight	ACGIH*	OSHA*
7732-18-5	Water	~95-99.9	N/A	N/A
7664-93-9	Sulfuric acid	~0.1-1	0.2 mg/m3 TWA (thoracic fraction)	1 mg/m3 TWA

^{*} ACGIH - Occupational Exposure Limits - TWAs

3. HAZARDS IDENTIFICATION

Emergency Overview	
Final product is not regulated	

Eye contact	Contact with eyes may cause irritation		
Skin contact	Substance may cause slight skin irritation		
Inhalation	May cause irritation of respiratory tract		
Ingestion	Harmful if swallowed		

4. FIRST AID MEASURES

General advice	 Show this safety data sheet to the doctor in attendance 		
Skin contact	Wash off immediately with soap and plenty of water removing all		
	contaminated clothes and shoes		
	Consult a physician if necessary		
Eye contact	 Immediately flush with plenty of water. After initial flushing, remove any 		
	contact lenses and continue flushing for at least 15 minutes		
	Keep eye wide open while rinsing		
	 If eye irritation persists, consult a specialist 		
Inhalation	 Move to fresh air in case of accidental inhalation of vapours 		
	If breathing is difficult, give oxygen		
	Consult a physician if necessary		
Ingestion	Call a physician or Poison Control Centre immediately		
	 If swallowed, seek medical advice immediately and show this container or 		
	label		
	 If conscious, drink plenty of water 		

5. FIRE-FIGHTING MEASURES			
Flash point	NΔ		

^{*} OSHA - Final PELs - Time Weighted Averages (TWAs)

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Specific hazards	Thermal decomposition can lead to release of irritating gases and vapours
Specific methods	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations
Special protective equipment for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
Under conditions giving incomplete combustion, hazardous gases produced may consist of:	nitrogen oxides (NOx).

6. ACCIDENTAL RELEASE MEASURES				
Personal precautions	 Evacuate personnel to safe areas Keep people away from and upwind of spill/leak Wear personal protective equipment Ensure adequate ventilation 			
Environmental precautions	 Prevent further leakage or spillage if safe to do so Prevent product from entering drains 			
Methods for cleaning up	 Dam up Neutralize with lime milk or soda and flush with plenty of water Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container After cleaning, flush away traces with water 			

7. HANDLING AND STORAGE

Handling

Technical measures/Precautions	Use only in area provided with appropriate exhaust ventilation
Safe handling advice	Wear personal protective equipment

Storage

Technical measures/Precautions	 Keep in properly labelled containers Store at room temperature in the original container Keep containers tightly closed in a dry, cool and well-ventilated place
Incompatible products	organic materialsreducing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment			
Hand protection	impervious gloves		
Eye protection	 tightly fitting safety goggles 		
Respiratory protection	Ensure adequate ventilation		
Skin and body protection	Chemical resistant apron		
	Lab coat		
Hygiene measures	When using, do not eat, drink or smoke		
	 Regular cleaning of equipment, work area and clothing 		

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form liquid. Appearance clear

ColourNone.OdourNone.

Important Health Safety and Environmental Information

pH 0 to 2
Boiling point/range 100°C
Flash point N/A
Vapour pressure NA.
Water solubility miscible.

10. STABILITY AND REACTIVITY				
Stability	Stable under normal conditions			
_	Hazardous polymerisation does not occur			
Materials to avoid • organic materials				
reducing agents				
Hazardous decomposition products	nitrogen oxides (NOx)			

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

CAS	Chemical Name	% Weight	LD50/oral/rat =	LD50/dermal/rat =
7732-18-5	Water	~95-99.9	N/A	N/A
7664-93-9	Sulfuric acid	~0.1-1	Oral LD50 Rat: 2140 mg/kg	Oral LD50 Rat: 2140 mg/kg

Product Information

Local effects	Poison			
Skin irritation	May cause skin irritation and/or dermatitis.			
Eye irritation	May cause eye irritation with susceptible persons.			
Inhalation	May cause irritation of respiratory tract.			
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.			
Chronic toxicity	Avoid repeated exposure.			

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Component Information

Product Information

Do not allow material to contaminate ground water or sewage system

Other information

13. DISPOSAL CONSIDERATIONS					
Waste from residues / unused products	In accordance with local and national regulations				
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal				

14. TRANSPORT INFORMATION

DOT Final product is not regulated

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15. REGULATORY INFORMATION

U.S. INVENTORIES:

CAS	Chemical Name	% Weight	CPCL*	NJRTK*	CERCLA/SARA*
7732-18-5	Water	~95-99.9	N/A	N/A	N/A
7664-93-9	Sulfuric acid	~0.1-1	N/A	sn 1761	1000 lb final RQ; 454 kg final RQ

^{*} CPCL - California - Proposition 65 - Carcinogens List

INTERNATIONAL INVENTORIES:

CAS	Chemical Name	% Weight	WHMIS*	EINECCS - European Union*
7732-18-5	Water	~95-99.9	Uncontrolled product according to WHMIS classification criteria	231-791-2
7664-93-9	Sulfuric acid	~0.1-1	D1A, E (including 35%, 36%, 38%, 50%, 83%); E (2%); D1B, E (5%, 12.25%)	231-639-5

^{*} WHMIS - Canada - WHMIS - Classifications of Substances

16. OTHER INFORMATION

The above information is believed to be accurate and represents the best information available to us. It has been compiled from the data presented in various technical publications and our experience and should only be used as a guide for handling this product. It is the user's responsibility to determine the suitability of this information for their particular purposes. We assume that only qualified individuals, trained and familiar with procedures suitable to this product will handle this material. Teknolab assumes no responsibility and shall not be held liable for any damage resulting from misuse of this product.

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^{*} NJRTK - New Jersey - Department of Health RTK List

^{*} CERCLA/SARA - Hazardous Substances and their Reportable Quantities

^{*} EINECCS - European Union - European inventory of Existing Commercial Chemical Substances (EINECCS)