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Revision Date 09-May-2012

Revision Number 2

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE
COMPANY/UNDERTAKING****Product Identifier**

Product Description: Sulfuric acid solution 0.01M (0.02N)
Cat No. J/8470/PB15, J/8470/24, J/8470/17

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

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet**Company**

Fisher Scientific UK
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Loughborough, Leicestershire, Great Britain
LE115RG
Tel: 01509 231166

E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

Tel: 01509 231166
Chemtrec US: (800) 424-9300
Chemtrec EU: 001 (202) 483-7616

SECTION 2. HAZARDS IDENTIFICATION**Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Not hazardous

Classification according to EU Directives 67/548/EEC or 1999/45/EC*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16*

R-phrases(s) none

Label Elements

Signal Word None
Hazard Statements

Other Hazards

No information available.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Water 7732-18-5	EEC No 231-791-2	99.9	7732-18-5	-	-	-
Sulfuric acid 7664-93-9	EEC No. 231-639-5	0.099	7664-93-9	C; R35	Skin Corr. 1A (H314) Eye Dam. 1 (H318)	01-2119458838-20
Mercuric chloride 7487-94-7	EEC No. 231-299-8	0.001	7487-94-7	T+; R28 C; R34 T; R48/24/25 N; R50-53 Repr.Cat.3; R62 Muta.Cat.3; R68	Acute Tox. 2 (H300) Skin Corr. 1B (H314) Muta. 2 (H341) Repr. 2 (H361f) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Eye Dam. 1 (H318)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see **Section 16**

SECTION 4. FIRST AID MEASURES
Description of first aid measures
Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Ingestion

Do not induce vomiting. Obtain medical attention.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Notes to Physician

Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES
Extinguishing media

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Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal..

SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling**

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

Specific End Uses**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure limits****Component**

European Union	The United Kingdom	France	Belgium	Spain
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Sulfuric acid	TWA: 0.05 mg/m ³ 8 hr	VME: 1 mg/m ³ 8 heures. VLCT: 3 mg/m ³	TWA: 1 mg/m ³ 8 uren STEL: 3 mg/m ³ 15 minuten	VLA-EC: 3 mg/m ³ 15 minutos VLA-ED: 1 mg/m ³ 8 horas
Mercuric chloride		0.1mg/ml VME	0.1mg/ml VLE 0.025mg/m ³ TWA (as Hg)	0.1mg/m ³ VLA-ED (as Hg)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Sulfuric acid		MAK: 0.1 mg/m ³ 8 Stunden. inhalable fraction Peak: 0.1 mg/m ³	TWA: 0.2 mg/m ³ 8 horas		TWA: 0.2 mg/m ³ 8 tunteina STEL: 1 mg/m ³ 15 minuutteina
Mercuric chloride		0.1mg/ml VME skin absorber	TWA: 0.025 mg/m ³ 8 horas Pele	0.15 mg/m ³ STEL 0.05 mg/m ³ MAC	TWA: 0.05 mg/m ³ 8 tunteina Skin

Component	Austria	Denmark	Switzerland	Poland	Norway
Sulfuric acid	STEL: 2 mg/m ³ 15 Minuten TWA: 1 mg/m ³ 8 Stunden	TWA: 1 mg/m ³ 8 timer	STEL: 0.1 mg/m ³ 15 Minuten MAK: 0.1 mg/m ³ 8 Stunden	NDSch: 3 mg/m ³ 15 minutach TWA: 1 mg/m ³ 8 godzinach	TWA: 0.1 mg/m ³ 8 timer STEL: 0.3 mg/m ³ 15 minutter. aerosol
Mercuric chloride	Skin STEL: 0.4 mg/m ³ 15 Minuten TWA: 0.1 mg/m ³ 8 Stunden		STEL: 0.8 mg/m ³ 15 Minuten MAK: 0.1 mg/m ³ 8 Stunden		TWA: 0.02 mg/m ³ 8 timer

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Sulfuric acid	TWA: 1.0 mg/m ³	TWA: 1 mg/m ³ 8 satima. STEL: 3 mg/m ³ 15 minutama.	TWA: 1 mg/m ³ 8 hr.		TWA: 1 mg/m ³ 8 hodinách. SO3 Ceiling: 2 mg/m ³ SO3

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Sulfuric acid	TWA: 1 mg/m ³ 8 tundides. fume STEL: 3 mg/m ³ 15 minutites. fume		TWA: 1 mg/m ³	STEL: 1 mg/m ³ 15 percekben. TWA: 1 mg/m ³ 8 órában.	TWA: 1 mg/m ³ 8 klukkustundum. Ceiling: 2 mg/m ³

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Sulfuric acid	TWA: 1 mg/m ³	TWA: 1 mg/m ³ fume STEL: 3 mg/m ³			TWA: 0.50 mg/m ³ 8 ore STEL: 1 mg/m ³ 15 minute

Component	Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
Sulfuric acid	Skin notation MAC: 1 mg/m ³	Ceiling: 0.1 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ 8 urah inhalable fraction	STV: 3 mg/m ³ 15 minuter LLV: 1 mg/m ³ 8 timmar.	

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Biological limit values

Component	European Union	United Kingdom	France	Spain	Germany
Mercuric chloride			Total inorganic Mercury: 0.015 mg/L blood end of shift at end of workweek Total inorganic Mercury: 0.050 mg/g creatinine urine prior to shift		

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

Exposure controls
Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location Ensure adequate ventilation, especially in confined areas

Personal protective equipment
Eye Protection

Safety glasses with side-shields

Hand Protection

Protective gloves

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Physical State

Liquid

Appearance

Clear, Colorless

pH

No information available.

Boiling Point/Range

100°C / 212°F

Melting Point/Range

No information available.

Flash Point

Not applicable

Autoignition Temperature

Not applicable

Specific Gravity

1.0

SECTION 10. STABILITY AND REACTIVITY
Reactivity
Chemical Stability

Stable under normal conditions.

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Possibility of Hazardous Reactions

Hazardous Polymerization Hazardous polymerization does not occur.
Hazardous Reactions . None under normal processing..

Conditions to Avoid

Incompatible products, Excess heat.

Incompatible Materials

Bases.

Hazardous Decomposition Products

Sulfur oxides. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11. TOXICOLOGICAL INFORMATION
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Information on Toxicological Effects
Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfuric acid	2140 mg/kg (Rat)		347 ppm (Rat) 1 h 510 mg/m ³ (Rat) 2 h
Mercuric chloride	1 mg/kg (Rat)	41 mg/kg (Rat)	

Chronic Toxicity

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

Component	IARC	UK
Sulfuric acid	Group 1	

Sensitization No information available.
Mutagenic Effects No information available
Reproductive Effects No information available.
Developmental Effects No information available.
Target Organs None known.
Endocrine Disruptor Information None known

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SECTION 12. ECOLOGICAL INFORMATION
Toxicity
Ecotoxicity effects

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sulfuric acid		500 mg/L LC50 96 h		EC50: 29 mg/L/24h
Mercuric chloride		0.13-0.19 mg/L LC50 96 h 0.1-0.182 mg/L LC50 96 h 0.096-0.133 mg/L LC50 96 h 0.02-0.26 mg/L LC50 96 h 0.014-0.019 mg/L LC50 96 h 4.425 mg/L LC50 96 h 0.4 mg/L LC50 96 h 0.155 mg/L LC50 96 h 0.041 mg/L LC50 96 h 5.933-10.34 mg/L LC50 96 h		EC50=0.0015mg/L 48 h EC50=0.012mg/L >48 h

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment
Other adverse effects

No information available

SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods
Waste from Residues / Unused Products

Dispose of in accordance with local regulations

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Contaminated Packaging Empty containers should be taken to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION
IMDG/IMO Not regulated

ADR Not regulated

IATA Not regulated

SECTION 15. REGULATORY INFORMATION
Safety, health and environmental regulations/legislation specific for the substance or mixture
International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Water	231-791-2	-		X	X	-	X	-	X	X	X
Sulfuric acid	231-639-5	-		X	X	-	X	X	X	X	X
Mercuric chloride	231-299-8	-		X	X	-	X	X	X	X	X

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment
SECTION 16. OTHER INFORMATION

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SECTION 16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R28 - Very toxic if swallowed

R34 - Causes burns

R35 - Causes severe burns

R50 - Very toxic to aquatic organisms

R53 - May cause long-term adverse effects in the aquatic environment

R48/24/25 - Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed

Revision Date 09-May-2012

Revision Summary

Reason for revision Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet