

Sulfuric Acid, solution 440 g/l (Treated with KMnO4)

Date 1.2.2013

Previous date: -

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****1.1.1 Commercial Product Name**

Sulfuric Acid, solution 440 g/l (Treated with KMnO4)

1.1.2 Product code

FF2014 5 L

1.2 Relevant identified uses of the substance or mixture and uses advised against**1.2.1 Recommended use**

Laboratory chemical.

1.3 Details of the supplier of the safety data sheet**1.3.1 Supplier**

Oy FF-Chemicals Ab

Street address

Teollisuustie 4

Postcode and post office

FI-90830 Haukipudas

Finland

Telephone

+358 8 5563 193

Telefax

+358 8 5563 194

Email

ffc@ff-chemicals.fi

1.4 Emergency telephone number**1.4.1 Telephone number, name and address**

Please contact the Emergency Centre in your own country.

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Classification according to 1999/45/EC: Causes severe burns.

1272/2008 (CLP)

Skin Corr. 1A, H314

67/548/EEC - 1999/45/EC

C; R35

2.2 Label elements**1272/2008 (CLP)**

GHS05

Signal word

Danger**Hazard Statements**

H314

Causes severe skin burns and eye damage.

Precautionary Statements

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P303+P361+P353

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

2.3 Other hazards**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous components**

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CAS/EC and Reg. number	Chemical name of the substance	Concentration Classification	
7664-93-9	Sulfuric acid	ca 24 %	C; R35; Skin Corr. 1A

4. FIRST AID MEASURES**4.1 Description of first aid measures**

Move the exposed person out from the contaminated area. Immediately take off contaminated clothing. Wear personal protective equipment.

4.1.2 Inhalation

Move the exposed to fresh air. In case of troubles with breathing, use respirator. Move the patient to fresh air. Keep warm and at rest. Call in medical personnel. Give artificial respiration if breathing stops.

4.1.3 Skin contact

Flush with copious amounts of water at least 15 minutes. Immediately contact medical aid.

4.1.4 Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Contact an ophthalmologist.

4.1.5 Ingestion

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage.

4.3 Indication of immediate medical attention and special treatment needed

IF exposed or concerned: Immediately call a POISON CENTER or doctor/physician.

5. FIREFIGHTING MEASURES

Non-combustible.

5.1 Extinguishing media**5.1.1 Suitable extinguishing media**

Extinguishing media should be suitable to surrounding materials.

5.2 Special hazards arising from the substance or mixture

Toxic combustion gases may be liberated in event of fire.

5.3 Advice for firefighters

Fire fighters have to wear a pressurized respirator and chemical protection suit.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Evacuate the area. Wear personal protective equipment. Avoid breathing vapours and mist.

6.2 Environmental precautions

Prevent leakage into sewers, soil, and waters.

6.3 Methods and materials for containment and cleaning up

Absorb in appropriate material. Pick up in containers for waste treatment. Clean contaminated surfaces. Ventilate the area.

6.4 Reference to other sections

4, 8, 13.

7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

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Prevent emissions of vapour and mists in air. Avoid inhalation of vapours and mist. Avoid contact with skin, eyes or clothing. Use personal protective equipment and local exhaust.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

7.3 Specific end use(s)**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****8.1.1 Threshold limits**

7664-93-9	Sulfuric acid	0.05 mg/m ³ (8 h)	0.1 mg/m ³ (15 min)
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8.1.2 Other information on limit values

The values above are Finnish OEL values.

8.1.3 Limit values in other countries

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8.1.4 DNELs

No information available.

8.1.5 PNECs

No information available.

8.2 Exposure controls**8.2.1 Appropriate engineering controls**

Obey good laboratory practices, good hygiene and safety guidelines. Take care of sufficient ventilation. Immediately take off contaminated clothing and wash before reuse. Wash hands after handling.

8.2.2 Individual protection measures**8.2.2.1 Respiratory protection**

Respirator. Filter E2-P3.

8.2.2.2 Hand protection

Protective gloves complying with EN 374. Material eg butyl rubber, neoprene.

8.2.2.3 Eye/face protection

Tightly fitting goggles or whole mask (EN 166).

8.2.2.4 Skin protection

Protective clothing.

8.2.3 Environmental exposure controls

Prevent leakage into sewers, soil, and waters.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Important Health Safety and Environmental Information****9.1.1 Appearance**

Liquid.

9.1.2 Odour

N/I

9.1.3 Odour threshold

No information available.

9.1.4 pH

No information available.

9.1.5 Melting point/freezing point

No information available.

9.1.6 Initial boiling point and boiling range

No information available.

9.1.7 Flash point

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9.1.8 Evaporation rate

No information available.

9.1.9 Flammability (solid, gas)

Not flammable.

9.1.10 Explosive properties**9.1.10.1 Lower explosion limit**

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9.1.10.2	Upper explosion limit	-
9.1.11	Vapour pressure	N/I
9.1.12	Vapour density	N/I
9.1.13	Relative density	N/I
9.1.14	Solubility(ies)	
9.1.14.1	Water solubility	Freely soluble in water.
9.1.15	Partition coefficient: n-octanol/water	-
9.1.16	Auto-ignition temperature	Not applicable.
9.1.17	Decomposition temperature	N/I
9.1.18	Viscosity	N/I
9.1.19	Explosive properties	No information available.
9.1.20	Oxidising properties	No information available.
9.2	Other information	

10. STABILITY AND REACTIVITY

10.1	Reactivity No information available.
10.2	Chemical stability Stable in normal conditions.
10.3	Possibility of hazardous reactions No information available.
10.4	Conditions to avoid Strong heating.
10.5	Incompatible materials No information available.
10.6	Hazardous decomposition products No information available.

11. TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects
11.1.1	Acute toxicity No information available.
11.1.2	Irritation and corrosion Causes severe skin burns and eye damage.
11.1.3	Sensitisation No hazard classification.
11.1.4	Subacute, subchronic and prolonged toxicity No hazard classification.
11.1.5	STOT-single exposure No hazard classification.
11.1.6	STOT-repeated exposure No hazard classification.
11.1.7	Aspiration hazard Not classified.

12. ECOLOGICAL INFORMATION

12.1	Toxicity
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- 12.1.1 Aquatic toxicity**
No hazard classification.
- 12.2 Persistence and degradability**
- 12.2.1 Biodegradation**
No information available.
- 12.3 Bioaccumulative potential**
No information available.
- 12.4 Mobility in soil**
Mobile, water solution.
- 12.5 Results of PBT and vPvB assessment**
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- 12.6 Other adverse effects**

13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods**
Dispose of contents/container in accordance of local and national regulations.
- 13.2 Waste from residues / unused products**
Dispose of as hazardous waste in compliance with local and national regulations.

14. TRANSPORT INFORMATION

	Land transport ADR/RID	Sea transport IMDG/IMO	Air transport ICAO/IATA
14.1 UN number	2796	2796	
14.2 UN proper shipping name	SULPHURIC ACID	SULPHURIC ACID	
14.3 Transport hazard class(es)	8	8	
14.4 Packing group	II	II	
14.5 Environmental hazards			
Other information			

- 14.6 Special precautions for users**
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

15. REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
REACH regulation, CLP regulation (EC).
Finnish Occupational Exposure Limit values.
- 15.2 Chemical safety assessment**
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16. OTHER INFORMATION

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- 16.3 Key literature references and sources for data**
ECHA C&L Inventory. Harmonised classification according to CLP regulation.
- 16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements**
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|------|--|
| R35 | Causes severe burns. |
| H314 | Causes severe skin burns and eye damage. |
- 16.6 Training advice**
Appropriate handling of hazardous substances.
- 16.7 Recommended restrictions**
Access only for qualified personnel.
- 16.8 Additional information available from:**
Oy FF-Chemicals Ab, Finland, Tel: 0358 (0)8 5563; ffc@ff-chemicals.fi

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.