

Date 24.8.2023

Previous date: 16.9.2016

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

#### 1.1.1 Commercial Product Name

Sulphuric acid 2,5 mol/l

#### 1.1.2 Product code

FF198 10 L, FF198 500 ML  
UFI 70J0-P05D-600X-T9YY

### 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

#### Business ID

05851808

#### 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

#### 1272/2008 (CLP)

Skin Corr. 1A, H314

### 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 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.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.



## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Hazardous components

Date 24.8.2023

Previous date: 16.9.2016

CAS/EC and Reg.number	EINECS	Chemical name of the substance	Concentration	Classification
7664-93-9	231-639-5	Sulphuric acid	15 - 25 %	Skin Corr. 1A, H314 SCL: Eye Irrit. 2; H319: 5 % <= C < 15 % Skin Corr. 1A; H314: C >= 15 % Skin Irrit. 2; H315: 5 % <= C < 15 %

### 3.3 Other information

The full text of hazard statements are given in chapter 16.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### 4.1.2 Inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products. If symptoms persist, call a physician.

#### 4.1.3 Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician.

#### 4.1.4 Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### 4.1.5 Ingestion

Rinse mouth. Do not induce vomiting without medical advice. Call a 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

### 5.1 Extinguishing media

#### 5.1.1 Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### 5.1.2 Extinguishing media which must not be used for safety reasons

Direct water jet.

### 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire: sulphur dioxide, sulphur trioxide, and acid fumes. In reaction with metals flammable hydrogen gas may be liberated.

### 5.3 Advice for firefighters

Mount respiratory protective device: chemical protective suit and pressurised respirator.

### 5.4 Specific methods

Move containers from fire area and cool them with water. Prevent water from contact to the acid. Use water mist to suppress acid vapours.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Stop leakage. Evacuate the contaminated area. Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid inhalation of vapours or mist. Confine the leaked acid e.g. with earth wall. Ensure that the leaked acid does not come to contact with water.

### 6.2 Environmental precautions

Do not allow to enter sewers/surface or ground water.

**Sulphuric acid 2,5 mol/l**

Date 24.8.2023

Previous date: 16.9.2016

**6.3 Methods and materials for containment and cleaning up**

Small leaks: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Dispose of contaminated material as waste. Do NOT absorb in sawdust or any flammable material. Clean surfaces. Ensure adequate ventilation.

**6.4 Reference to other sections**

For disposal see section 13.

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

Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Handle in fume cupboard or hood. Emergency shower and eye-bath have to be available on work place. Wash contaminated clothing before reuse.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep cool. Store in a dry place. Keep container tightly closed. Protect from sunlight. Store in a well-ventilated place. Store away from incompatible materials and ignition sources.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****8.1.1 Threshold limits**

7664-93-9	Sulphuric acid	0.05 mg/m <sup>3</sup> (8 h)	0.1 mg/m <sup>3</sup> (15 min)
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**8.1.2 Other information on limit values**

Finnish limit value above.

**8.1.3 Limit values in other countries**

EU sulfuric acid 7664-93-9 IOELV TWA 0,05mg/m<sup>3</sup> 8h, t mist 2009/161/EU

GB sulfuric acid 7664-93-9 WEL TWA 0,05mg/m<sup>3</sup> 8h, t, mist EH40/2005  
mist As mists

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

t Thoracic fraction

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

**8.2 Exposure controls****8.2.1 Appropriate engineering controls**

Handle with good practice and according to safety instructions. Adequate ventilation is required. Take off contaminated clothing, clean before reuse. Wash hands thoroughly after handling.

**8.2.2 Individual protection measures****8.2.2.1 Respiratory protection**

Respirator when exposure to product vapours is possible. Type: E/B-P2

**8.2.2.2 Hand protection**

Anti-acid gloves EN 374

Material e.g. butyl rubber or Viton

**8.2.2.3 Eye/face protection**

Goggles with side shields or face mask EN 166

**8.2.2.4 Skin protection**

Laboratory coat

**8.2.3 Environmental exposure controls**

Prevent spills in sewers.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Date 24.8.2023

Previous date: 16.9.2016

## 9.1 Important Health Safety and Environmental Information

### 9.1.1 Appearance

Liquid, colourless or brownish

### 9.1.2 Odour

Odourless or slightly pungent odour

### 9.1.3 Odour threshold

> 1 mg/m<sup>3</sup>, odour does not indicate health risk

### 9.1.4 pH

~ 1 (20 °C)

### 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

No information available.

### 9.1.8 Evaporation rate

No information available.

### 9.1.9 Flammability (solid, gas)

No information available.

### 9.1.10 Explosive properties

#### 9.1.10.1 Lower explosion limit

No information available.

#### 9.1.10.2 Upper explosion limit

No information available.

### 9.1.11 Vapour pressure

No information available.

### 9.1.12 Vapour density

No information available.

### 9.1.13 Relative density

No information available.

### 9.1.14 Solubility(ies)

#### 9.1.14.1 Water solubility

Completely soluble in water.

#### 9.1.14.2 Fat solubility (solvent - oil to be specified)

Soluble in most organic solvents.

### 9.1.15 Partition coefficient: n-octanol/water

No information available.

### 9.1.16 Auto-ignition temperature

No information available.

### 9.1.17 Decomposition temperature

No information available.

### 9.1.18 Viscosity

No information available.

### 9.1.19 Explosive properties

No risk for explosion.

### 9.1.20 Oxidising properties

No information available.

## 9.2 Other information

No information available.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable in normal conditions.

### 10.2 Chemical stability

Stable in normal conditions.

### 10.3 Possibility of hazardous reactions

Risk of explosion in reaction with chlorates, perchlorates and potassium permanganate.

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

Cyanides, sulfides, carbides. Aluminium, copper and their alloys. Organic and combustible materials. Bases.

### 10.6 Hazardous decomposition products

In reaction with metals flammable hydrogen gas may be liberated.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### 11.1.1 Acute toxicity

Based on available data the classification criteria are not met.

**Sulphuric acid 2,5 mol/l**

Date 24.8.2023

Previous date: 16.9.2016

**11.1.2 Irritation and corrosion**

Causes severe skin burns and eye damage.

**11.1.3 Sensitisation**

Based on available data the classification criteria are not met.

**11.1.4 Subacute, subchronic and prolonged toxicity**

Based on available data the classification criteria are not met.

IARC: Inorganic acid mists containing sulphuric acid cause cancer in humans (group 1).

**11.1.5 STOT-single exposure**

Based on available data the classification criteria are not met.

May be irritating in respiratory tract.

**11.1.6 STOT-repeated exposure**

Based on available data the classification criteria are not met.

Prolonged exposure to sulphuric acid mist may damage dental enamel, cause chronic irritation in eyes and chronic inflammation in respiratory tract.

Repeated skin contact with diluted sulphuric acid solutions may cause dryness and cracking of skin.

**11.1.7 Aspiration hazard**

Based on available data the classification criteria are not met.

**11.1.8 Other information on acute toxicity**

This product does not contain any known or suspected endocrine disruptors.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity****12.1.1 Aquatic toxicity**

Based on available data, the classification criteria are not met.

Sulphuric acid:

Fish: LC50: 80 mg/l (24 h)

Daphnia: EC50: 30 mg/l (24 h)

Damage to aqueous organisms is caused by a strong acidic effect.

**12.2 Persistence and degradability****12.2.1 Biodegradation**

The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3 Bioaccumulative potential**

Accumulation not expected.

**12.4 Mobility in soil**

Mobile, water solution.

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

Prevent entry into drains, sewers, soil or watercourses.

This product does not contain any known or suspected endocrine disruptors.

**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

Dispose of contents/container in accordance with local/regional/national/international regulations.

Handle as hazardous waste.

Waste code: 06 01 01\* sulphuric acid and sulphurous acid

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

**14. TRANSPORT INFORMATION****14.1 UN number**

UN2796

Date 24.8.2023

Previous date: 16.9.2016

<b>14.2</b>	<b>UN proper shipping name</b>	SULPHURIC ACID
<b>14.3</b>	<b>Transport hazard class(es)</b>	8
<b>14.4</b>	<b>Packing group</b>	II
<b>14.5</b>	<b>Environmental hazards</b>	No
<b>14.6</b>	<b>Special precautions for users</b>	
	Hazard code: 80	
	Tunnel restriction code: E	
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	
	Not applicable.	

## 15. REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).  
Take note of Dir 94/33/EC on the protection of young people at work.  
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.  
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
- 15.2 Chemical safety assessment**  
Chemical Safety Assessment/Reports (CSA/CSR) is not available for this substance.

## 16. OTHER INFORMATION

- 16.1 Additions, Deletions, Revisions**  
1.1.2, 1.4.1, 2.3, 3.2, 4, 7.3, 8.1.1, 11.1.8, 12.5, 12.6, 13.1, 15.1, 16.1, 16.3
- 16.3 Key literature references and sources for data**  
ECHA C&L Inventory  
Finnish Institution of Occupational Health databases  
Publication HTP Values 2020 Ministry of Social Affairs and Health
- 16.4 Classification procedure**  
Harmonized classification according to CLP regulation
- 16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements**  
H314 Causes severe skin burns and eye damage.
- 16.6 Training advice**  
Handle with good practice and according to safety instructions. Handling of hazardous chemicals.
- 16.8 Additional information available from:**  
Oy FF-Chemicals Ab, Finland, tel. +358 8 5563 193  
ffc@ff-chemicals.fi

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