

**SULFURIC ACID 50 v/v-%**

Date 15.3.2022

Previous date: 21.6.2011

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

SULFURIC ACID 50 v/v-%

**1.1.2 Product code**FF2169 1 L, FF2169 5 L  
UFI 2706-80KT-W00C-M5J4**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**

Emergency telephone number 112

**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**

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**

None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous components****CAS/EC and  
Reg.number****EINECS****Chemical name of the  
substance****Concentration****Classification**

7664-93-9

231-639-5

Sulphuric acid

50 %

Skin Corr. 1A, H314

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**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**

Immediately remove any clothing soiled by the product. Take affected persons out of the danger area and lay down.

**4.1.2 Inhalation**

Supply fresh air; consult doctor in case of complaints.

**4.1.3 Skin contact**

Take off contaminated clothing immediately. Rinse with plenty of water.

**4.1.4 Eye contact**

Rinse opened eye for several minutes under running water then consult a doctor. Remove contact lenses. Continue rinsing. Avoid rinsing water running into the clean eye.

**4.1.5 Ingestion**

Rinse mouth with water. Do not induce vomiting; call for medical help immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

Respiratory tract: Burning pain, sore throat, coughing, dyspnea, shortness of breath. Symptoms may appear delayed after exposure.

Skin: Redness, pain, blisters, severe skin damage.

Eyes: Redness, pain, severe corrosion damage.

Ingested: Abdominal pain, burning sensation, shock or collapse.

**4.3 Indication of immediate medical attention and special treatment needed**

Immediately call a POISON CENTER or doctor/physician.

**5. FIREFIGHTING MEASURES**

Not flammable.

**5.1 Extinguishing media****5.1.1 Suitable extinguishing media**

Carbon dioxide, extinguishing powder or water mist. Fight larger fires with water spray or alcohol resistant foam.

**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.

**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.

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**6.4 Reference to other sections**

See chapter 7 for safe handling.  
See chapter 8 for personal protection.  
See chapter 13 for waste management.

**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)**

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**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)
		Thoracic fraction	

**8.1.2 Other information on limit values**

Finnish limit values above.

**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.

**8.2.2.2 Hand protection**

Anti-acid gloves. Material e.g. butyl rubber or Viton.

**8.2.2.3 Eye/face protection**

Tight sitting chemical goggles or face shield. Ensure that eyewash stations and safety showers are close to the workstation location.

**8.2.2.4 Skin protection**

Protective clothing.

**8.2.3 Environmental exposure controls**

Prevent spills in sewers.

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

Liquid, colourless, clear

**9.1.2 Odour**

Odourless

**9.1.3 Odour threshold**

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

**9.1.4 pH**

< 1

**9.1.5 Melting point/freezing point**

No data available.

**9.1.6 Initial boiling point and boiling range**

295 - 315 °C

**9.1.7 Flash point**

Not applicable.

SAFETY DATA SHEET  
**SULFURIC ACID 50 v/v-%**

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<b>9.1.8</b>	<b>Evaporation rate</b>	No data available.
<b>9.1.10</b>	<b>Explosive properties</b>	
<b>9.1.10.1</b>	<b>Lower explosion limit</b>	-
<b>9.1.10.2</b>	<b>Upper explosion limit</b>	-
<b>9.1.11</b>	<b>Vapour pressure</b>	< 0.01 hPa
<b>9.1.12</b>	<b>Vapour density</b>	1.84 kg/m <sup>3</sup>
<b>9.1.13</b>	<b>Relative density</b>	No data available.
<b>9.1.14</b>	<b>Solubility(ies)</b>	
<b>9.1.14.1</b>	<b>Water solubility</b>	Completely soluble in water.
<b>9.1.14.2</b>	<b>Fat solubility (solvent - oil to be specified)</b>	Soluble in most organic solvents.
<b>9.1.15</b>	<b>Partition coefficient: n-octanol/water</b>	No data available.
<b>9.1.16</b>	<b>Auto-ignition temperature</b>	No data available.
<b>9.1.17</b>	<b>Decomposition temperature</b>	No data available.
<b>9.1.18</b>	<b>Viscosity</b>	23 mPas (20 °C)
<b>9.1.19</b>	<b>Explosive properties</b>	No risk for explosion.
<b>9.1.20</b>	<b>Oxidising properties</b>	No data available.
<b>9.2</b>	<b>Other information</b>	-

## 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**  
Contact with metals liberates hydrogen gas.
- 10.4 Conditions to avoid**  
Decomposes on heating.
- 10.5 Incompatible materials**  
Organic materials, metals, reducing agents, bases, alkaline earth metals
- 10.6 Hazardous decomposition products**  
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## 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects**
- 11.1.1 Acute toxicity**  
Not classified.
- 11.1.2 Irritation and corrosion**  
Causes severe skin burns and eye damage. May cause blindness.
- 11.1.3 Sensitisation**  
Not classified.
- 11.1.4 Subacute, subchronic and prolonged toxicity**  
Not classified.
- 11.1.5 STOT-single exposure**  
Not classified.
- 11.1.6 STOT-repeated exposure**  
Not classified.
- 11.1.7 Aspiration hazard**  
Not classified.

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**11.1.8 Other information on acute toxicity**

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

Not classified as hazardous to the environment

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 biodegradability are not applicable to inorganic substances.

**12.3 Bioaccumulative potential**

Bioaccumulation is unlikely.

**12.4 Mobility in soil**

Mobile dissolved in water.

**12.5 Results of PBT and vPvB assessment**

Not classified.

**12.6 Other adverse effects**

Do not flush in surface waters or sewers.

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

Handle as hazardous waste.

HP 8 Corrosive

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

UN2796

**14.2 UN proper shipping name**

SULPHURIC ACID, containing 15-51 % acid

**14.3 Transport hazard class(es)**

8

**14.4 Packing group**

II

**14.5 Environmental hazards**

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**14.6 Special precautions for users**

Hazard code: 80

Tunnel restriction code: E

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

Not applicable.

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH regulation

CLP regulation

Finnish Threshold 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  
Finnish Institution of Occupational Health databases  
Finnish Threshold Limit Values

**16.4 Classification procedure**

CLP regulation (1272/2008/EC)

**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, 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.