

## 1. Identification of the substance/preparation and of the company/undertaking

**Identification of the product:****Product code:** S7064**Name of material:** Sulphuric acid 98%**Use of the substance/preparation:**

Analytical chemistry, laboratory reagent, acidifying agent, synthesis of organic products, nitrogen determinations.

## 2. Composition/information on ingredients

**Identification and amount of the components:**

Dangerous components: Product: Sulphuric acid

EC no: (EINECS) 231-639-5

CAS: 7664-93-9

Molecular weight: 98.08 g/mol

Formula : H<sub>2</sub>SO<sub>4</sub>

EC Index: 016-020-00-8

R: 35

Symbol: C (Corrosive)

Content: &gt; 95%

## 3. Hazards identification

Causes severe burns,

## 4. First aid measures

**After inhalation:** Fresh air. Summon doctor.**After skin contact:** Wash off with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.**After ingestion:** Plenty of water to drink; avoid vomiting (risk of perforation!). Immediately summon doctor. Do not attempt to neutralize.**After eye contact:** Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately summon eye specialist.

## 5. Fire-fighting measures

**Suitable extinguishing media:** To suit environment.**Extinguishing media not to be used:** water**Special risks:** Non-combustible. Formation of dangerous vapours possible in event of fire, Hydrogen may form upon contact with metals (danger of explosion!) The following may develop in event of fire: sulfoxides**Special protective equipment for fire fighting:** Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

## 6. Accidental release measures

**Person-related precautionary measures:** Do not inhale vapours/aerosols. Avoid substance contact.

Ensure supply of fresh air in enclosed rooms.

**Environmental precautions:** Do not allow to enter sewerage system.**Procedures for cleaning / absorption:** Take up with liquid-absorbent material. Forward for disposal, clean up.**Additional notes:** Elimination of noxious effect: Neutralize with diluted sodium hydroxide solution or by throwing on chalk, lime sand, or sodium carbonate.

## 7. Handling and storage

**Handling:** No further requirements.**Storage:** Tightly closed, away from sources of ignition and heat, in a well-ventilated place. Store at + 15°C to + 25°C, Accessible only for authorized persons.

MSDS : S7064 Sulphuric acid 98%

Contact : info@qrec.asia



## 8. Exposure controls/personal protection

### Exposure controls:

**Occupational exposure controls:** The personal protective equipment must be selected according to the working place, based on the concentration and amount of the dangerous substance. The supplier should indicate the stability of the personal protective equipment to chemical reagents.

**Respiratory protection:** Required when vapours/aerosols are generated.

**Hand protection:** Required

**Eye protection:** Required

**Skin protection:** Acid-resistant protective clothing. Application of skin-protective barrier cream recommended. **Industrial hygiene:** Change contaminated clothing and immerse in water. Wash hands and face after working with substance.

## 9. Physical and chemical properties

### General information:

**Form:** Liquid

**Colour:** Colourless

**Odour:** Odourless

### Important health, safety and environmental information:

**pH value (49 g/l H<sub>2</sub>O, 25 °C):** 0.3

**Boiling temperature:** ~ 310 °C

**Flash point:** --

**Explosion limits (low):** --

**Explosion limits (high):** ---

**Vapour pressure:** (20 °C) ~ 0.0001 hPa

**Density (20 °C):** 1.84 g/cm<sup>3</sup>

**Solubility in water: (20 °C):** miscible

**Solubility in:** ethanol: miscible

**Viscosity:** --

**Relative vapour density:** ~ 3.4

**Refractive index:** --

**Melting temperature:** ~ -15 °C

**Ignition temperature:** --

The logo for QRëC, featuring the letters Q, R, and C in a large, light blue, serif font. The letter 'R' has a small 'ë' above it. A trademark symbol (TM) is located to the upper right of the letter 'C'.

## 10. Stability and reactivity

**Conditions to be avoided:** Strong heating.

**Substances to be avoided:** Water, alkali metals, alkali compounds, ammonia, alkaline earth metals, alkali hydroxides solutions, acids, alkaline earth compounds, metals, metal alloys, phosphorus oxides, phosphorus, hydrides, halogen-halogen compounds, salts of oxyhalogenic acids, permanganates, nitrates, carbides, combustible substances, organic solvents, acetylides, nitriles, organic nitro compounds, anilines, peroxi compounds, picrates, nitrides, lithium silicide.

**Hazardous decomposition products:** In event of fire: see chapter 5.

**Further information:** Hygroscopic, Corrosive; incompatible with various metals, animal/vegetable tissues.

## 11. Toxicological information

### Acute toxicity:

**LD<sub>50</sub>(oral, rat):** 2140 mg/kg

**LC<sub>50</sub> (inhalation, rat):** 510 mg/m<sup>3</sup> /2h. (Pure substance)

### Specific symptoms in animal studies:

Eye irritation test (rabbit): burns

Skin irritation test (rabbit): burns

Toxicologic values are not available due to other dangerous properties of the substance.

### Subacute to chronic toxicity:

**Mutagenicity:** Bacterian mutagenicity: Ames-Test negative

**Teratogenicity:** Nonteratogenic in animal experiments.

### Further toxicological information:

**After inhalation:** Inhalation of aerosols results in damage of the mucous membranes involved.

**After skin contact:** Severe burns under the formation of sloughs.

MSDS : S7064 Sulphuric acid 98%

**After eye contact:** Burns, Risk of serious damage to eyes.

**After ingestion:** Severe pain (risk of perforation!), general feeling of sickness, vomiting, diarrhea, after a latency period of some weeks possibly pyloric stenosis.

**Further information:**

The product should be handled with the care usual when dealing with chemicals.

### 12. Ecological information

**Ecotoxic effects:** Damage of aquatic organisms, Harmful effect due to pH shift, Toxic effect for fishes and algal, does not cause biological oxygen deficit, An enrichment in organisms should not be expected.

Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities, Neutralization possible in waste water treatment plants.

**Daphnia toxicity:** Daphnia magna EC50: 29 mg/l /24h.

**Persistence and degradability:**

Biological degradability: Methods for determination of biodegradability can not be applied to inorganic substances.

**Further ecologic data:** Do not allow to enter waters, waste water, or soil!

### 13. Disposal considerations

**Product:** There are no uniform EU Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EU member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

**Packaging:** Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

### 14. Transport information

**Road transport:**

UN-No: 1830

ADR class: 8 C1 II

Correct technical name: SULPHURIC ACID

**Sea transport:**

UN-No: 1830

IMDG class: 8 II

Correct technical name: SULPHURIC ACID

**Air transport:**

UN-No: 1830

IATA/ICAO class: 8 II

Correct technical name: SULPHURIC ACID

### 15. Regulatory information

Labelling according to EC Directives

**Symbol:** C (Corrosive)

**R-phrases:** 35 Causes severe burns.

**S-phrases:** 26-30-36/37/39-45 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Never add water to this product. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

**EC-Index-No:** 016-020-00-8

**16. Other information****Text of any R phrases of the dangerous components of the mixture:**

Product: Sulfuric acid R35: Causes severe burns.

**Reason for the revision:** General update.

**Date:** 14/2/2007

*No warranty, expressed or implied for a particular purpose or otherwise is made, except the products herein discussed comply to the chemical description on the labels. Buyer assumes risks of the use, storage and handling. Producer or distributors shall not be liable for any incidental or consequential damages arising directly or indirectly in connection with the purchase, use, storage or handling of this product. The information contained herein is, to the best of our knowledge, true and accurate. However, all recommendations or suggestions are made without guarantee, since the conditions of use are beyond our control. We disclaim any liability incurred in connection with the use of these data or suggestions.*

The logo for QRëC, featuring the letters Q, R, and C in a light blue serif font, with an 'ë' in the middle. A small 'TM' trademark symbol is positioned to the upper right of the 'C'.