

# MATERIAL SAFETY DATA SHEET

According to 91/155/EEC

**Sulfuric acid 0,5 MOL/L (1N)**

**48462**

Date Updated: 30/05/2007

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

### **Identification of the product:**

**Product number:** 48462

**Name of material:** Sulfuric acid 0,5 mol/l (1 N)

### **Use of the substance/preparation:**

analytical chemistry, laboratory reagent, titrant in volumetric analysis.

### **Manufacturer/supplier identification:**

#### **Company:**

**Gatt-Koller GmbH**

**Swarovskistrasse 74**

**A – 6067 Absam**

Phone: 0043-5223-44216-0 Fax: 0043-5223-43216

### **Emergency telephone:**

0049-551-19240

## **2. Composition/information on ingredients**

**Description:** Aqueous solution.

### **Identification and amount of the components:**

Dangerous components:

Product: Sulfuric acid

EC no. (EINECS) 231-639-5

CAS: 7664-93-9

EC Index: 016-020-00-8

Content: < 5%

## **3. Hazards identification**

### **Hazards classification for the substance according to the european directives:**

No hazardous product as specified in Directive 67/548/EEC.

## **4. First aid measures**

**After inhalation:** Fresh air.

**After skin contact:** Rinse out under running water. Remove contaminated clothing.

**After ingestion:** if victim is still conscious: plenty of water to drink (several liters). Summon doctor.

**After eye contact:** rinse out with plenty of water with the eyelid held wide open. Summon eye specialist.

## **5. Fire-fighting measures**

**Suitable extinguishing media:** To suit environment.

**Special risks:** Non-combustible. Hydrogen may form upon contact with metals (danger of explosion!)

**Special protective equipment for fire fighting:** Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

**Further information:** Prevent fire-fighting water from entering surface water or groundwater.

## **6. Accidental release measures**

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

**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 nocive effect: Neutralize with: dil. sodium hydroxide solution, lime, sandlime or soda.

## **7. Handling and storage**

**Handling:** No further requirements.

**Storage:** Store tightly closed and dry. Away from combustible materials and sources of ignition and heat.

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Store at + 15°C to + 25°C. Cannot be stored indefinitely.

## **8. Exposure controls/personal protection**

**Exposure limit values:** (MAK, Germany): 0,1 mg/m<sup>3</sup>

### **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:** When vapours/aerosols are generated.

**Hand protection:** required

**Eye protection:** required

**Skin protection:** 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: (20 °C)** ~ 0,6  
**Boiling temperature:** ---  
**Flash point:** ---  
**Explosion limits (low):** ---  
**Explosion limits (high):** ---  
**Vapour pressure:** ---  
**Density (20 °C):** 1,03 g/cm<sup>3</sup>  
**Solubility in water: (20 °C):** miscible  
**Viscosity:** ---  
**Refractive index:** ---  
**Melting temperature:** ---  
**Ignition temperature:** ---

## **10. Stability and reactivity**

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

**Substances to be avoided:** alkali metals, alkaline earth metals, alkali compounds, alkaline earth compounds, ammonia, alkali hydroxides solutions, acids, metals, metal alloys, combustible substances, organic solvents, salts of oxyhalogenic acids, permanganates.

**Hazardous decomposition products:** No information available.

**Further information:** Corrosive

Incompatible with: metals, animal/vegetable tissues.

## **11. Toxicological information**

### **Acute toxicity:**

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

**LC<sub>50</sub>(inhalation, rat):** 0,51 mg/l /2h (pure substance)

### **Subacute to chronic toxicity:**

For the partial component/s:

### **Mutagenicity:**

Bacterial mutagenicity: Ames-Test: negative

**Teratogenicity:** Nonteratogenic in animal experiments.

### **Further toxicological information:**

Property which must be anticipated on the basis of the chemical/physical data

:

**After skin contact:** irritations. However, when the product is handled appropriately, hazardous effects are

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unlikely to occur.

**After eye contact:** Under given circumstances contact with the eye leads to corneal lesions.

**After ingestion:** Ingestion may result in damage of the mucous membranes involved.

**Further information:**

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

## **12. Ecological information**

**Ecotoxic effects:** Quantitative data on the ecological effect of this product are not available. An enrichment in organisms should not be expected.

**Daphnia toxicity:** Daphnia magna EC<sub>50</sub>: 29 mg/l /24h. (pure substance).

**Persistence and degradability:** Methods for determination of biodegradability can not be applied to inorganic substances.

**Further ecologic data:**

The following applies to sulfuric acid in general: Damage of aquatic organisms. Harmful effect due to pH shift.

Toxic effect for fishes and algal. Caustic even in diluted form. Does not cause biological oxygen deficit.

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

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.

**Sulfuric acid**, solution 0,5 mol/l (1 N)

## **14. Transport information**

**Road transport:**

**UN-No:** 2796

**ADR class:** 8 II

**Correct technical name:** SULPHURIC ACID

**Sea transport:**

**UN-No:** 2796

**IMDG class:** 8 II

**EMS-number:** F-A S-B

**Correct technical name:** SULPHURIC ACID

**Air transport:**

**UN-No:** 2796

**IATA/ICAO class:** 8 II

**Correct technical name:** SULPHURIC ACID

## **15. Regulatory information**

**EC-classification:**

No hazardous product as specified in Directive 67/548/EEC.

**Symbol:** -

**R-phrases:** -

**S-phrases:**-

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German regulations:

Water pollution class no polluting substance VwVwS Anh. 4

Storage class VCI 8 B

## **16. Other information**

### **Text of any R phrases of the dangerous components of the mixture:**

Product: Sulfuric acid solution

The information supplied in this data sheet, is based on the present state of our knowledge. The purpose of this information, is only to describe the security measures to follow in the handling of the product.

Therefore it does not represent a guarantee about the properties of the product.

**Gatt-Koller GmbH**

**Swarovskistrasse 74**

**A – 6067 Absam**

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