F&C SAFETY DATA SHEET

Catalog No.: 910573
Product name: Sulfuric acid 40%

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

Catalogue No.: 910573
Product name: Sulfuric acid 40%

Manufacturer/supplier identification

Company: Fertilizers & Chemicals Ltd.
P.O.box 1428, Haifa 31013, Israel
Contact for information: Tel. +972-4-8468178/179 Fax +972-4-8468296
Emergency Tel. No.: +972-4-8468229 Fax +972-4-8468110 +072-4-8451578

2. Composition/information on ingredients

aqueous solution.

Hazardous ingredients:
Name according to EC directives: Sulfuric acid
Hazard symbols: C
EC-index-No.: 016-020-00-8
CAS-No.: 7664-93-9
R-phrases: 35 causes severe burns
content: 40%

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 eye contact: rinse out with plenty of water for at least 10
minutes with the eyelid held wide open. Immediately summon eye specialist.  
**After swallowing:** make victim drink plenty of water (if necessary  
several liters), avoid vomiting (risk of perforation!). Immediately summon doctor. Do  
not attempt to neutralize.

5. **Fire fighting measures**  
**Suitable-extinguishing media:**  
In adaption to materials stored in the immediate neighborhood.  
**Special risks:**  
Development of hazardous combustion gases or vapours possible  
in the event of fire.  
Hydrogen may form upon contact with metals (danger of  
explodions!)  
The following may develop in event of fire: sulfur oxides.  
**Special protective equipment for fire fighting:**  
Do not stay in dangerous zone without suitable chemical protection  
clothing and self-contained breathing apparatus.  
**Other information:**  
Non-combustible.

6. **Accidental release measures**  
**Person-related precautionary measures:**  
Do not inhale vapours/aerosols. Avoid substance contact.  
**Procedures for cleaning/absorption:**  
Take up with liquid-absorbent material (e.g. chemizorb®).  
Forward for disposal clean up affected area.  
**Environmental-protection measures:**  
Do not allow to enter sewerage system  
**Additional notes:**  
Render harmless: neutralize with diluted sodium hydroxide  
solution or by throwing on lime, lime sand, or sodium carbonate.

7. **Handling and storage**  
**Handling:**
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No further requirements.

Storage:
Tightly closed. Dry. In a well-ventilated place. Storage temperature: no restrictions.

8. Exposure controls/personal protection

Specific control parameter
MAK Germany (max. workplace conc.) Sulfuric acid: 1 mg/m³

Personal protective equipment:
Respiratory protection: required when vapours/aerosols are generated.
Eye protection: required
Hand protection: required
Skin protection: Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Other protective equipment: Acid-resistant protective clothing.

Industrial hygiene:
Change contaminated clothing and immerse in water. Apply skin-protective barrier cream. Wash hands and face after working with substance.

9. Physical and chemical properties

Form: liquid
Colour: colourless
pH value (20°C): strongly acid
Melting temperature: -68 °C
Boiling temperature: ~119 °C
Ignition temperature: not available
Flash point: not available
Explosion limits: lower not available
upper not available
Relative vapour density: lower not available
upper not available
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10. Stability and reactivity

Conditions to be avoided
Strong heating.

Substances to be avoided
Water, alkali metals, alkali compounds, ammonia, alkaline earth metals, alkalis, acids, alkaline compounds, metals, metal alloys, phosphorus oxides, phosphorus, hydrides, halogen-halogen compounds, oxyhalogenic compounds, permanganates, nitrates, carbides, combustible substances, organic solvents, acetylidene nitriles, organic nitro compounds, anilines, peroxides, picrates, lithium silicate.

Hazardous decomposition products
in the event of fire: sulfur oxide

Further information
hygroscopic, has a corrosive effect,
incompatible with metals, animal/vegetable tissues.

11. Toxicological information

Acute toxicity
LD₅₀ (oral, rat): 2140 mg/kg (using 25% solution):
LC₅₀ (inhalation, rat): 510 mg/m³/2h (calculated on the pure substance);
Toxicological values are not available due to other dangerous properties of the substance.

Further toxicologic information
After inhalation of aerosols: damage to the affected mucous membranes.
After skin contact: severe burns with formation of scabs.
After eye contact: burns, corneal lesions.
After swallowing: serve pain (risks of perforation!) nausea, vomiting and diarrhoea.
After a latency period of several weeks possibly pyloric stenosis.
12. Ecological information

Ecotoxic effects:
Biological effects: Toxic for aquatic organisms. Harmful effect due to pH shift. Toxic effect on fish and algae. 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 wastewater treatment plants

Further ecological data:
The following applies to sulfuric acid: biological effects: toxic for aquatic organisms: LC₅₀ 96h >10 mg/l; fish; lethal as from 1.2 mg/l as from 6.3 mg/l lethal in 24 h. Harmful effect due to pH shift.

Do not allow to enter waters, wastewater, or soil!

13. Disposal considerations

Product:
There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC 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

Transport over land ADR/RID and GGVS/GGVE (Germany)

GGVS/GGVE class: 8  Number and letter: 1b
ADR/RID class: 8  Number and letter: 1b
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Name of material: 2796 Sulfuric acid 40%

River transport over ADR/ADNR not examined

Sea transport IMDG
IMDG class: 8 UN-No.: 2796 Packaging group: II
EMS 8-06 MFAG: 700
Correct technical name: Sulfuric acid 40%

Air transport ICAO-TI and IATA-DGR
ICAO/IATA class: 8 UN/ID-No.: 2796 Packaging group: II
Correct technical name: Sulfuric acid

The transport regulations are cited according to international regulations in the form applicable in Germany (GGVS/GGVE). Possible national deviations in other countries are not considered.

15. Regulatory information
Labeling 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).
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16. Other information

Reduced labeling on the container due to small quantity

Date of issue: 22.12.98

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