



Fertilizers & Chemicals Ltd., P.O.Box 1428, 31 013 Haifa, Israel.+972-4-846-8178, Fax: +972-4-846-8296

## F&C SAFETY DATA SHEET

**Catalog No.: 910409, 911586**

**Product name: Sodium hydroxide solution 45%**

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

**Catalogue No.:** 910409, 911586  
**Product name:** Sodium hydroxide solution 45%

#### 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.:** +972-4-8451578 Fax +972-4-8468110  
+972-4-8468229

### 2. Composition/information on ingredients

aqueous solution.

#### Synonyms

Sodium hydroxide solution

#### Hazardous ingredients:

Name according to EC directives: Sodium hydroxide

Hazard symbols:	C	R-phrases:	35
EC-index-No.:	011-002-00-6		causes severe burns
CAS-No.:	1310-73-2		content: 45%

### 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.



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**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:**

Hydrogen may form upon contact with light metals (danger of explosion!)

**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.

**Additional notes:**

Render harmless: neutralize with diluted sulfuric acid.

### 7. Handling and storage

**Handling:**

No further requirements.

**Storage:**

Tightly closed. Dry. Protected from air. At + 15°C to + 25°C.

**Requirements for storage rooms and containers:**

No aluminium, tin, or zinc containers.

### 8. Exposure controls/personal protection



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**Specific control parameter**

MAK Germany (max.workplace conc.) Sodium hydroxide:2 mg/m<sup>3</sup>

**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:** Suitable protective clothing.

**Industrial hygiene:**

Immediately 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
Odour:		odourless
pH value (20°C)		~14
Melting temperature		not available
Boiling temperature		not available
Ignition temperature		not available
Flash point		not available
Explosion limits	lower	not available
	upper	not available
Relative vapour density		not available
Density (20°C)		1.48 g/cm <sup>3</sup>
Solubility in water (20°C)		soluble

### 10. Stability and reactivity

**Conditions to be avoided**

No information available



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### **Substances to be avoided**

Metals, light metals: formation of hydrogen (risk of explosion!)

ammonium compounds: formation of ammonia. acids.

### **Hazardous decomposition products**

no information available

## **11. Toxicological information**

### **Acute toxicity**

Quantitative data on the toxicity of this product are not available.

### **Subacute to chronic toxicity.**

An embryotoxic effect need not be feared when the threshold limit value is observed.

### **Further toxicological information**

**After skin contact:** burns, necrosis.

**After eye contact:** burns, necrosis, Risk of blindness!

**After swallowing:** burns of: mouth, mucous membranes, oesophagus. Risk of perforation in the esophagus and stomach. Systemic effects: collapse, death.

### **Further data**

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

## **12. Ecological information**

### **Ecotoxic effects:**

**Biological effects:** Toxic effect on fish and plankton. Harmful effect due to pH shift.

Death of fish possible. Does not cause biological oxygen deficit.

Neutralization possible in waste water treatment plants

Fish toxicity: LC<sub>50</sub>: 189 mg/l (1 N solution = 40 g/l).

### **Further ecological data:**

Do not allow entering waters, waste water, or soil!

## **13. Disposal considerations**

### **Product:**



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There are no uniform EC Regulations for disposal of chemicals of 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 packing 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: 42b

ADR/RID class : 8                      Number and letter: 42b

Name of material: 1824 Sodium hydroxide solution

**River transport over ADR/ADNR**

not examined

**Sea transport IMDG**

IMDG class: 8              UN-No.: 1824      Packaging group: II

Ems: 8-06                      MFAG: 705

**Correct technical name:** Sodium hydroxide, solution

**Air transport ICAO-TI and IATA-DGR**

ICAO/IATA class: 8              UN/ID-No.: 1824      Packaging group: II

**Correct technical name:** Sodium hydroxide, solution

The transport regulations are cited according to international regulations and 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 severe burns

R-phrases: 35                      Causes severe burns



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S-phrases: 26-36/37/39-45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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).

### 16. Other information

**Date of issue: 22.12.98**

All information, recommendations and suggestions herein concerning our products are based upon tests and data believed to be reliable, however, it is the users responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or impressed or implied is made by F&C, as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does F&C assume any liability arising out of the use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or governmental regulation.