

SAFETY DATA SHEET

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

Identification of the product

Catalogue No: P31701

ID No.: P31701

Product name: **Fehlings solution for the determination of sugar, ready to use**

Manufacturer/supplier identification

Company: Merck Eurolab Ltd, Merck House, Poole, Dorset, BH15 1TD, England
Telephone : 01202 669700 Telefax : 01202 665599

Emergency telephone No.: 01202 669700

2. Composition/information on ingredients

Chemical characterization

Solution in water

Product name:

CAS number: Not applicable

EC-No.: Not applicable

Hazardous ingredients:

Sodium hydroxide	5-10%	
CAS number:	1310-73-2	EC-No.: 215-185-5
Symbol:	C	
R-phrases:	R35	
S-phrases:	S26-37/39-45	
Potassium hydroxide	2-5%	
CAS number:	1310-58-3	EC-No.: 215-181-3
Symbol:	C	
R-phrases:	R22-35	

S-phrases:	S26-36/37/39-45	
Copper sulphate	<4%	
CAS number:	7758-98-7	EC-No.: 231-847-6
Symbol:	Xn N	
R-phrases:	R22-36/38-50/53	
S-phrases:	S22-60-61	

3. Hazards identification

Causes severe burns.

4. First aid measures

Eye contact: Irrigate thoroughly with water. If discomfort persists, obtain medical attention.

Inhalation: Remove from exposure.

Skin contact: Wash off thoroughly with soap and water.

Ingestion: Wash out mouth thoroughly with water. In severe cases obtain medical attention.

5. Fire-fighting measures

Special risks:

Not combustible.

Suitable extinguishing media:

To suit environment.

6. Accidental release measures

Wear appropriate protective clothing. Inform others to keep at a safe distance.

If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on an inert absorbent, transfer to container and arrange removal by disposal company. Ventilate area to dispel residual vapour.

For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

7. Handling and storage

Handling:

Wash hands and face thoroughly after working with material. Contaminated clothing should be removed and washed before re-use.

Storage:

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture.

8. Exposure controls/personal protection

As appropriate to the situation and the quantity handled. Engineering methods to control or prevent exposure are preferred. Methods could include process enclosure or mechanical ventilation.

Respirator: Self-contained breathing apparatus

Ventilation: Fume cupboard

Gloves: Rubber or plastic

Eye Protection: Goggles or face-shield

Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

See section 15 for UK exposure limits.

9. Physical and chemical properties

Form:	liquid
Colour:	blue
Odour:	odourless
Melting temperature	n/a
Boiling temperature	n/a
Density(g/ml)	1.20
pH value	>12
Solubility in water	Miscible in all proportions
Flash point	Not applicable
Explosion limits: lower:	Not applicable
Auto-ignition temperature	Not applicable

10. Stability and reactivity

Stable.

Substances to be avoided

aluminium, zinc, tin (Formation of: hydrogen); acids, ammonium compounds.

The possibility of reaction with other substances cannot be excluded.

11. Toxicological information

Strongly corrosive substance.

After inhalation: burns of mucous membranes.

After skin contact: Burns.

After eye contact: Burns. Risk of blindness!

After ingestion: Risk of perforation in the oesophagus and stomach.

Further data

No data

No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.

12. Ecological information

Harmful effect due to pH shift.

The following applies to copper compounds: biological effects: toxic for aquatic organisms; copper ions toxic for fish, algae, protozoa, and bacteria at concentrations below 1 mg/l. Fish: *C. auratus* toxic from 0,01 mg/l; mussels: 0.55 mg/l lethal in 12 h.; oysters: 0,1 mg/l toxic.

13. Disposal considerations

Chemical residues are generally classified as special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

14. Transport information

UN-No.: 3266

IMDG class: 8

IMO: 8/3266

Packaging group: II

IATA: 3266

Packaging group: II

Correct technical name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE/POTASSIUM HYDROXIDE)

ADR/RID: 8,47°(b)

15. Regulatory information

Labelling according to EC directives

Symbol: C Corrosive.

R-phrases: R35

Causes severe burns.

S-phrases: S26-36/37/39-45

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).

EC-No.: Not applicable

Local Regulations

Within the UK, the use of this material must be assessed under the Control of Substances Hazardous to Health (COSHH) regulations.

UK Exposure Limits: OES - Sodium hydroxide:
Short term: 2 mg/m³

OES - Potassium hydroxide:
Short term: 2 mg/m³

16. Other information

Date of issue:	04/07/00
Date of print:	02/10/01