

1. Identification

Product Code **CS7330-18**

Product Name **SULPHURIC ACID 4M (8N)**

Molecular Formula $H_2SO_4 = 98.07$

CAS Number 7664-93-9

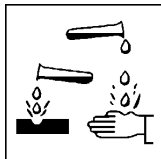
Supplier:  **BEECROFT & PARTNERS**
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Rotherham
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(Have this document to hand)

2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Sulphuric acid	7664-93-9	231-639-5	32.0%	C : R35	OES

3. Hazards Identification

Causes severe burns.

4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION URGENTLY.

Skin Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. OBTAIN MEDICAL ATTENTION URGENTLY.

Inhalation Remove from exposure. Keep warm and at rest.

Ingestion If conscious give plenty of water to drink. Do not induce vomiting. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. May evolve toxic fumes if involved in a fire.

Extinguishing Media Consider what other flammable materials are present and act accordingly.

Unsuitable Media Do not allow water to come into direct contact with material.

6. Accidental Release Measures

Personal Protection	Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.
Environmental	Keep material out of sewers, storm drains, surface waters and soil. Keep non-neutralised material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Neutralise spill with soda ash, lime, calcium carbonate or sodium bicarbonate. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. When diluting acid always add, acid to water cautiously with agitation. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage .

8.1 Occupational Exposure Limits

Component	CAS No	Occupational Exposure Standard				Maximum Exposure Limits			
		Long Term		Short Term		Long Term		Short Term	
		ppm	mg m-3	ppm	mg m-3	ppm	mg m-3	ppm	mg m-3
Sulphuric acid	7664-93-9	-	1	-	-	-	-	-	-

8.2 Personal Protection

Respiratory	In cases where a spray or mist may be formed, use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits.
Hands	Use PVC gauntlets.
Eyes	Use chemical full face shield.
Skin	If skin contact or contamination of clothing is likely, protective clothing must be worn. Wear PVC oversuit.

9. Physical & Chemical Properties

Appearance	Clear colourless liquid.
Odour	Odourless.
pH	1 @ 20 °C
Boiling point	Not available
Melting point	Not available
Flash point	Not available
Upper Flammable Limit	Not available
Lower Flammable Limit	Not available
Auto Ignition	Not available
Explosive properties	No.
Oxidising Properties	No.
Vapour Pressure	1 mm Hg @ 146 C
Relative Density	1.2350
Water Solubility	Completely soluble in water with moderate increase in temperature.

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	No specific conditions.
Materials to Avoid	Oxidising and reducing agents. Alkalis. Reacts with most metals to produce extremely flammable hydrogen gas. Peroxides, potassium permanganate, sodium, potassium, platinum, potassium tertiary butoxide. Combustible materials. Reacts with sulphide,phosphide,cyanide, carbide and silicides producing very toxic gases. Many organic compounds.

10. Stability & Reactivity (continued)

Hazardous Toxic and acidic dense white fumes.
Decomposition Products

11. Toxicological Information

Eyes The liquid and solutions will cause severe burns. Damage can range from severe irritation and corneal scarring to permanent blindness.

Skin The liquid and solutions will cause severe burns. Severe ulceration and scarring may occur in serious cases. The dilute acid is irritating to the skin.

LD50 Skin Not available

Ingest Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus. Symptoms may include salivation, thirst, difficulty in swallowing, pain, shock and vomiting.

LD50 Ingest Rat 2140 mg/Kgg

Inhalation Exposure to vapour concentrations above the occupational exposure limits will produce severe irritation of the eyes, nose, throat and respiratory tract. High concentrations of vapour will seriously damage the membranes lining the nose, throat and upper respiratory tract.

Carcinogenicity A positive association has been shown between the development of upper respiratory tract cancer and exposure to high levels of sulphuric acid mist.

Mutagenicity Not considered to be a mutagen.

Reproductive Effects None identified.

Other Information The irritant effect provides warning that control of exposure is needed. 0.125-0.5 ppm are mildly annoying, 1.2-2.5 ppm definitely unpleasant and 10-20 ppm unbearable.

12. Ecological

Dangerous to aquatic organism: causes damage to crops and vegetables. Natural alkalinity reduces damage caused by low pH. Aquatic toxicity LC50 Bluegill sunfish. 24 hr fresh water- 24.5 mg/l, 48 hr tap-water - 49 mg/l.

13. Disposal Considerations

Disposal Methods Dilute in a large excess of water and carefully neutralise with soda ash, then wash to drain with copious amounts of water.

Contaminated Packaging Very carefully wash out containers with water. Use a licensed waste disposer.

14. Transport Information

Proper Shipping Name Sulphuric acid
UN Number 2796
UN Classification 8 Corrosive
Subsidiary Risk None
Flash Point Not available
Packing Group II
Marine pollutant No
ADR Hazard ID 80

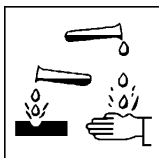


15. Regulatory Information

Labelling Corrosive.
Classification

Label Symbols

C



15. Regulatory Information (continued)

Risk & safety Phrases Causes severe burns. Keep locked up and out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Never add water to this product. In case of accident or if you feel unwell, seek medical advice immediately (show the label).

EEC Number 231-639-5

16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

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