

SAFETY DATA SHEET

COPPER SULPHATE

1 . IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY:

PRODUCT NAME:	COPPER SULPHATE
CHEMICAL NAME 2:	COPPER(II) SULPHATE 5-HYDRATE, COPPER SULPHATE PENTAHYDRATE
PART No.:	RM090
SUPPLIER:	Intra-Laboratories Ltd Unit 8 Devonshire Meadows Plymouth, Devon PL6 7E Tel: 01752 724109

2 . COMPOSITION/INFORMATION ON INGREDIENTS:

EU INDEX No.:	029-004-00-0
EEC (EINECS) No.	231-847-6
CAS No.:	7758-98-7

3 HAZARDS IDENTIFICATION:

Harmful if swallowed. Irritating to eyes and skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Marine pollutant.

4 . FIRST AID MEASURES:

GENERAL:	IN ALL CASES OF DOUBT OR WHEN SYMPTOMS PERSIST, ALWAYS SEEK MEDICAL ATTENTION
INHALATION:	Move affected person from exposure. If recovery not rapid or complete seek medical attention.
INGESTION:	DO NOT INDUCE VOMITING. In case of spontaneous vomiting, be sure that vomit can freely drain because of danger of suffocation. Only when conscious, rinse mouth with plenty of water and give plenty of water to drink - (approx 500ml). Keep patient at rest and obtain medical attention.
SKIN:	Remove contaminated clothing. Wash affected area with plenty of soap and water. If symptoms occur or persist, obtain medical attention. Launder clothing before re-use.
EYES:	Rinse immediately with plenty of water for at least 5 minutes while lifting the eye lids. Seek medical attention. Continue to rinse.

5 . FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA:	Use extinguishing media suitable against surrounding fire or the cause of fire.
SPECIAL FIRE FIGHTING PROCEDURES:	Take measures to retain water used for extinguishing. Do not release contaminated water into drains, soil and surface water. Dispose of contaminated water and soil according to local regulations.
HAZARDOUS COMBUSTION PRODUCTS:	Toxic or corrosive vapours may be released in fire situation.
PROTECTIVE MEASURES IN FIRE:	Fire fighters should wear self-contained breathing apparatus.

6 . ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTION IN SPILL:	Avoid direct contact with skin, eyes and clothing. Avoid breathing dust. Wear appropriate protective clothing.
PRECAUTIONS TO PROTECT ENVIRONMENT:	Prevent material from entering drains or water courses. Advise the Environment Agency or relevant local authority if contamination of soil or water systems occurs.
SPILL CLEANUP METHODS:	Cover spillage with damp inert material, take-up or collect and place into a suitable closable labelled container for disposal. Wash the area clean with water and detergent, observing environmental requirements.

7 . HANDLING AND STORAGE:

USAGE PRECAUTIONS:	HANDLING - Product should be used in accordance with good industrial principles for handling and storing of hazardous chemicals. Minimise creation of air-borne dust by application of good occupational hygiene principles, appropriate control measures and extraction techniques.
STORAGE PRECAUTIONS:	Store in a cool, dry, well ventilated place, in securely closed original container.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION:

INGREDIENT COMMENTS:	No specific OES assigned, however for dusts of any kind, ensure LTEL (8-hour TWA ref. period) level does not exceed 10 mg.m ³ for total inhalable dust or 4 mg.m ³ for respirable dust (or) as recommended in current edition of EH40.
VENTILATION:	Provide adequate general and local exhaust ventilation.
RESPIRATORS:	In case of insufficient ventilation, for short periods of work, a suitable approved dust protection to P2 standard is recommended.
PROTECTIVE GLOVES:	Use protective gloves.
EYE PROTECTION:	Wear approved safety goggles.
OTHER PROTECTION:	Wear protective clothing and closed footwear. Wear personal protective equipment appropriate to the quantity of material handled.
HYGIENIC WORK PRACTICES:	SKIN PROTECTION - apply barrier cream to hands and exposed skin. Regularly vacuum dust to minimise the potential of air-borne exposure.

9 . PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Blue crystals.		
DENSITY/SPECIFIC GRAVITY (g/ml):	2.28	Temperature (°C):	20
pH-VALUE, DILUTED SOLUTION:	4	Concentration % M:	
SOLUBILITY DESCRIPTION:	Soluble in water. Aqueous solutions are acidic.		
SOLUBILITY VALUE (g/100g H₂O 20 °C):	32		
DECOMPOSITION TEMP.(°C):	> 700°C		

10 . STABILITY AND REACTIVITY:

STABILITY:	Stable under normal conditions of use.
CONDITIONS TO AVOID:	Avoid excessive heat.
MATERIALS TO AVOID:	Magnesium powder or metal, acetylene.
HAZARDOUS DECOMP. PRODUCTS:	Thermal decomposition may release noxious, toxic or corrosive gases or vapours. - sulphur oxides(SO _x) and copper (oxide) fumes.

11 . TOXICOLOGICAL INFORMATION:

	LD50. Oral. Rat. 300 mg/kg
TOXICOLOGICAL INFORMATION:	Harmful by ingestion or if inhaled as dust or mist.
HEALTH HAZARDS, GENERAL:	Material is corrosive in strong aqueous solutions. Dust will severely irritate eyes, skin and mucous membranes.
INHALATION:	Repeated exposure may cause chronic upper respiratory irritation or pulmonary effects.
SKIN:	May cause skin irritation.
EYES:	Causes burns.
OTHER HEALTH EFFECTS:	May cause astringent effect on mucous surfaces.
MEDICAL SYMPTOMS:	Symptoms of acute toxicity may include nausea, vomiting, abdominal pain and diarrhoea. Other symptoms may include dryness of mouth and throat, thirst and metallic taste.

12 . ECOLOGICAL INFORMATION:

ECOLOGICAL INFORMATION:	Very toxic to aquatic organisms. Classed as marine pollutant PP. Harmful effect due to pH shift.
MOBILITY:	Material can potentially percolate into soil. Will dissolve in wet conditions leaving trace amount of elemental copper ions in surrounding soil.

B . DISPOSAL CONSIDERATIONS:

DISPOSAL METHODS: This material and/or its container must be disposed of as hazardous waste according to Special Waste Regulations 1996 or according to local regulations, in compliance with Duty of Care Regulations and Special Waste Regulations.

WASTE CLASS: WASTE CODE: 0705** HAZARDOUS PROPERTY: H6, H14

4 . TRANSPORT INFORMATION:

LABEL FOR CONVEYANCE:

UN No. ROAD: 3077

UK ROAD PACK GR.: III

ADR CLASS No.: 9

ADR CLASS: Class 9: Other dangerous substances.

ADR ITEM No.: 12°(c)

HAZARD No. (ADR): 90 Environmentally hazardous substance; miscellaneous dangerous substances.

ADR MARGINAL: 2901

HAZCHEM CODE: 2X

PROPER SHIPPING NAME I: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS (Copper sulphate)

UN No. SEA: UN 3077

IMDG CLASS: 9

IMDG PAGE No.: 9029a

IMDG PACK GR.: III

MARINE POLLUTANT: Yes.

UN No., AIR: UN-ID 3077

ICAO CLASS: 9

AIR PACK GR.: III

5 . REGULATORY INFORMATION:

LABEL FOR SUPPLY:



RISK PHRASES: R-22 Harmful if swallowed.
R-36/38 Irritating to eyes and skin.
R-50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES: S-2 Keep out of reach of children.
S-22 Do not breathe dust.
S-60 This material and its container must be disposed of as hazardous waste.
S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

UK REGULATORY REFERENCES: Chemicals (Hazard Information & Packaging) Regulations 1993. Classification, Packaging and Labelling Regulations 1984.

6 . OTHER INFORMATION:

INFORMATION SOURCES: This product has been classified in accordance with CHIP3 regulations.

REVISION COMMENTS: Edition 01; Revised item(s):

ISSUED BY : MK

SDS N o.: 167

DATE: 12/07/02

DISCLAIMER: The foregoing data has been compiled for safety information only and does not form part of any selling specification. Information contained in this Data Sheet is to the best of Intra-Labs knowledge correct at the time of publication. Customers should always satisfy themselves, that the product which they have selected is entirely suitable for their purpose under their conditions of use and in compliance with current regulations. For any further information, please contact the supplier.