

Infosafe No™ 1CHFJ	Issue Date : January 2022	RE-ISSUED by CHEMSUPP
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Product Name **FEHLING'S SOLUTION No.1**

Classified as hazardous

## Section 1 - Identification

**Product Identifier** FEHLING'S SOLUTION No.1

**Company Name** CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)

**Address** 38 - 50 Bedford Street GILLMAN  
SA 5013 Australia

**Telephone/Fax Number** Tel: (08) 8440-2000

**Emergency Phone Number** CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

**E-mail Address** www.chemsupply.com.au

**Recommended use of the chemical and restrictions on use** Used with Fehling's Solution No. 2 as a test for sugars, aldehydes, etc. This product supplied by Chem-Supply is for education/research use only.

<b>Other Names</b>	<u><b>Name</b></u>	<u><b>Product Code</b></u>
	Fehling's Solution A	
	Part 1 of Potassium Cupri Tartrate solution	
	FEHLING'S SOLUTION No.1	FL019
	Fehling's solution, solution A	
	Cupric sulfate Solution	

### Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

## Section 2 - Hazard(s) Identification

**GHS Classification of the Substance/Mixture** Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

**Hazard Statement (s)** H410 Very toxic to aquatic life with long lasting effects.

**Pictogram (s)** Environment



**Precautionary Statement – Prevention** P273 Avoid release to the environment.

**Precautionary Statement – Response** P391 Collect spillage.

**Precautionary Statement – Disposal** P501 Dispose of contents/container to an approved waste disposal plant.

## Section 3 - Composition and Information on Ingredients

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Ingredients	Name	CAS	Proportion
	Water to make a total of	7732-18-5	92.2-95 %
	100%		
	Copper (II) sulfate pentahydrate	7758-99-8	5-7.8 %

## Section 4 - First Aid Measures

<b>Inhalation</b>	Remove victim to fresh air. No specific measures
<b>Ingestion</b>	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.
<b>Skin</b>	Wash with plenty of soap and water. Seek medical advice if effects persist.
<b>Eye</b>	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
<b>First Aid Facilities</b>	Maintain eyewash fountain and safety shower in work area.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
<b>Other Information</b>	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

## Section 5 - Firefighting Measures

<b>Specific Methods</b>	This product contains a substantial proportion of water therefore there are no restrictions on the type of extinguishing media which may be used.
<b>Specific Hazards Arising from the Chemical</b>	Runoff may pollute waterways.
<b>Hazchem Code</b>	•3Z
<b>Precautions in connection with Fire</b>	Wear SCBA and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.

## Section 6 - Accidental Release Measures

<b>Personal Protection</b>	Wear protective clothing specified for normal operations (see Section 8)
<b>Clean-up Methods - Small Spillages</b>	Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.
<b>Environmental Precautions</b>	Prevent from entering into drains, ditches, rivers or the sea.

## Section 7 - Handling and Storage

<b>Precautions for Safe Handling</b>	Avoid generating and inhaling mist.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in cool place and out of direct sunlight. Store in well ventilated area. Keep containers closed at all times.

## Section 8 - Exposure Controls and Personal Protection

<b>Other Exposure Information</b>	A time weighted average (TWA) has been established for Copper, dusts and mists (as Cu) (Safe Work Australia) of 1 mg/m <sup>3</sup> . The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
<b>Respiratory Protection</b>	Usually not required. Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive

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<b>Eye and Face Protection</b>	pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection. The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
<b>Hand Protection</b>	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.
<b>Personal Protective Equipment</b>	Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.
<b>Body Protection</b>	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
<b>Hygiene Measures</b>	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

## Section 9 - Physical and Chemical Properties

<b>Form</b>	Liquid
<b>Appearance</b>	Clear bright blue solution.
<b>Boiling Point</b>	>100 °C
<b>Specific Gravity</b>	1.04
<b>Flammability</b>	Non combustible material.

## Section 10 - Stability and Reactivity

<b>Chemical Stability</b>	Stable under ordinary conditions of use and storage.
<b>Hazardous Polymerization</b>	Will not occur.

## Section 11 - Toxicological Information

<b>Ingestion</b>	May cause repeated vomiting, burning pain in the mouth, throat, esophagus and stomach, diarrhea, nausea, abdominal pain and ulceration of the gastrointestinal tract. If vomiting does not occur immediately, systemic copper poisoning may occur. Symptoms may include capillary damage, headache, cold sweat, weak puls, kidney and liver damage, central nervous excitation followed by depression, jaundice, convulsions, blood effects, paralysis and coma. Death may occur from shock or renal failure.
<b>Inhalation</b>	Mist may cause irritation of the nasal passages, throat and respiratory tract. Symptoms may include coughing, sore throat and shortness of breath. May result in ulceration and perforation of the respiratory tract.
<b>Skin</b>	Irritating to skin. May cause redness and itching. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
<b>Eye</b>	May be an eye irritant.
<b>Carcinogenicity</b>	No evidence of carcinogenic properties.
<b>Mutagenicity</b>	No evidence of mutagenic effects.
<b>Chronic Effects</b>	Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis.

## Section 12 - Ecological Information

<b>Information on Ecological Effects</b>	Severe marine pollutant - IMDG Code. Toxic to aquatic life. 96-hour LC50 (fish): <1 mg/L (Cu). 96-hour LC50 (algae): <1 mg/L (Cu).
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<b>Environmental Protection</b>	Contain spillage. When released into the soil, this material is not expected to biodegrade and may leach into ground water. When released into the water, this material is not expected to biodegrade or evaporate significantly. This material is expected to bioaccumulate significantly.
<b>Acute Toxicity - Fish</b>	The following applies to copper compounds: biological effects: toxic for aquatic organisms; copper ions toxic for fish at concentrations below 1mg/l. Fish (C. auratus): toxic from 0.01 mg/l
<b>Acute Toxicity - Other Organisms</b>	The following applies to copper compounds: biological effects: toxic for aquatic organisms; copper ions toxic for other organisms at concentrations below 1mg/l Mussels: 0.55 mg/l lethal in 12 hr. Oysters: 0.1 mg/l toxic.

## Section 13 - Disposal Considerations

<b>Disposal Considerations</b>	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.
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## Section 14 - Transport Information

<b>Transport Information</b>	Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in; (a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or (b) IBCs. Dangerous goods of Class 9 (Miscellaneous Dangerous Goods) are incompatible in a placard load with any of the following: Class 1, Class 5, if the Class 9 dangerous goods are fire risk substances.
<b>ADG UN Number</b>	3082
<b>ADG Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (Contains Copper Sulfate)
<b>ADG Transport Hazard Class</b>	9
<b>ADG Packing Group</b>	III
<b>Hazchem Code</b>	•3Z
<b>EPG Number</b>	9C1
<b>IERG Number</b>	47

## Section 15 - Regulatory Information

<b>Regulatory Information</b>	Copper sulphate - Listed in the Australian Inventory of Chemical Substances (AICS).
<b>Poisons Schedule</b>	S5

## Section 16 - Any Other Relevant Information

<b>Literature References</b>	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
<b>Contact Person/Point</b>	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change

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**Empirical Formula  
& Structural  
Formula**

**Technical Data**

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CuSO<sub>4</sub> + aq

Mix with an equal part of Fehling's Solution No. 2 BP immediately before use.  
...End Of MSDS...

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