MSDS 1800 Cupric Nitrate

User declaration:- I have read and understood this Safety Data Sheet

Name:-_____Signature_____Date_____

GHS Symbols:  Danger

Date of Issue/re-issue:**-15.02.2016**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name	**ECP LTD**
Address:	39 Woodside Ave, Northcote, Auckland , New Zealand
Emergency Tel:	NZ: 0800 154 666 (24 h)
Telephone:	09 480 4386
Fax	09 480 4385
Product	**Cupric Nitrate**
Synonyms	Cupric Nitrate
Tracked Substance?:	No

Regulatory Classification numbers

CAS Number:	19004-19-4
UN Number:	1477
HSNO Approval Number:	HSR001323
DG Class :	5.1
Secondary DG Class (if any):	N/A
Packing group:	II
Recomended use:	Laboratory Investigations

2.Hazard Identification

2.1 GHS Classification

Oxidizing liquids or solids (Category B)

Acute toxicity, Oral (Category D)
Skin irritation (Category A)
Serious eye damage (Category A)
Aquatic toxicity (Acute or Chronic) (Category A)

2.2 GHS Label elements, including precautionary statements

Pictogram 

Signal word **Danger**

Hazard statement(s)
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.

Precautionary statement(s)
Prevention
P210 Keep away from heat.
P220 Keep/Store away from clothing/ combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.
P321 Specific treatment (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 Collect spillage.

Disposal
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazard Classification	Australia: Classified as Hazardous according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC). Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Classified as Dangerous Goods for transport according to the NZS 5433:1999 Transport of Dangerous Goods on Land. HSNO Classification: 5.1.1B - Oxidising substance - medium hazard 6.1D - Substance that is acutely toxic. 6.3A - Substance that is irritating to the skin.

6.4A - Substance that is irritating to the eye.
6.5B - Substance that is a contact sensitiser.
6.9B - Substance that is harmful to human target organs or systems.
9.1A - Substance that is very toxic to aquatic organisms.
9.3C - Substance that is ecotoxic to terrestrial vertebrates.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Copper(II) nitrate-2,5-hydrate	19004-19-4	100 %

4. FIRST AID MEASURES

Inhalation Remove the source of contamination or move the victim to fresh air. Seek immediate medical attention.

Ingestion Do NOT induce vomiting. Immediately wash out mouth with large amounts of water. Seek immediate medical attention.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Seek immediate medical attention.

Eye If in eyes, immediately hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed off completely. Seek immediate medical attention.

First Aid Facilities Eye wash station, safety shower and normal washroom facilities.

Advice to Doctor Treat symptomatically.

Other Information For advice in an emergency, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 POISON / 0800 764 766) or a doctor (at once).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Extinguish fire with foam, dry chemical powder, carbon dioxide, water fog or water spray.

Hazards from Combustion Products Under fire conditions this product will decompose and produce oxides of nitrogen.

Specific Hazards	Non-combustible solid; however it may cause or enhance the fire by reaction with combustible materials. An exothermic reaction occurs with strong acids and reducing agents. The product attacks organic matter such as wood, paper and fats. Greatly increases the burning rate of combustible materials. Reacts with acids to form spontaneously flammable chlorine dioxide gas. In sufficient quantity and reduced particle size it is capable of creating a dust explosion.
Hazchem Code	1[Z]
Precautions in connection with Fire	Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) and full protective clothing to prevent exposure to vapours, fumes or products of combustion. Water spray may be used to cool down heat-exposed containers. If safe to do so, remove containers from path of fire. Do not allow run-off from fire fighting to enter drains or water courses. In case of fire the product may be violently or explosively reactive; wear appropriate protection gear. Use water spray to disperse vapours.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Wear appropriate personal protective equipment and clothing to prevent exposure. Stop the leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Collect the material and place into suitable labelled containers for subsequent re-use or disposal. If contamination of sewers or waterways occurs inform the local water authorities and EPA in accordance with local regulations. Dispose of waste according to applicable local and national regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Use in designated areas with adequate ventilation. Avoid breathing in dust or mist. Wear suitable protective clothing, gloves and eye/face protection. Keep containers closed when not in use. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.
Conditions for Safe Storage	The material is a strong oxidiser. Store in a cool, dry well-ventilated area away from extremes of temperature, ignition sources, acids, reducing agents and combustible materials. Keep containers tightly closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	The applicable exposure standards that have been established for this substance by the Australian National Occupational Health & Safety Commission (NOHSC) and the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour are as follows:

	Australian National Occupational Health And Safety Commission (NOHSC) Exposure Standards: Substance TWA STEL ppm mg/m³ ppm mg/m³ Copper (fume) - 0.2 - - Copper, dusts & mists (as Cu) - 1 - - New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards: Substance TWA STEL ppm mg/m³ ppm mg/m³ Copper (fume) - 0.2 - - Copper, dusts & mists (as Cu) - 1 - -
Biological Limit Values	No biological limit allocated.
Other Exposure Information	TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week. STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.
Engineering Controls	Ensure ventilation is adequate and that air concentration of components are controlled below quoted exposure standards. A local exhaust ventilation system, drawing dust/mist away from workers' breathing zone, should be used.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then an approved respirator should be used. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear laminated film, PVC or other suitable gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Odourless, blue-green powder.
Melting Point	114°C
Solubility in Water	Soluble
Specific Gravity	2.32
pH Value	3.5-4.5
Vapour Pressure	Not available
Flash Point	Not applicable
Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of storage and handling. Reacts violently with strong acids and reducing agents. Contact with combustible materials may cause fire.
Incompatible Materials	Strong reducing agents and strong acids. Also incompatible with ammonia, finely powdered metals and organic materials.
Hazardous Decomposition Products	Oxides of nitrogen.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	LD50 (Oral, Rat): 794 mg/kg
Inhalation	Inhalation of dust or mist can cause severe irritation and chemical burns to the respiratory tract.
Ingestion	Harmful if swallowed. Ingestion of this product will cause severe irritation to the mouth, throat and stomach, resulting in vomiting, gastric pain, dizziness, convulsions, shock, coma and possibly death. Copper salts tend to cause vomiting

	and for this reason, poisoning by the ingestion of large amounts is rare.
Skin	Irritating to skin. Skin contact will cause redness, itching, irritation, severe pain, and if prolonged, possible chemical burns.
Eye	Severely irritating to eyes. Eye contact will cause stinging, blurring, tearing and severe pain. It can cause permanent eye damage if not washed off immediately.
Chronic Effects	Chronic inhalation and ingestion may cause liver and kidney damage. May cause methemoglobinemia, which is characterized by chocolate-brown colored blood, weakness, shortness of breath, cyanosis (bluish skin due to deficient oxygenation of blood), and if not treated, unconsciousness and possible death. Individuals with Wilson's disease are unable to metabolize copper. Thus, copper accumulates in various tissues and may result in liver, kidney, and brain damage.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not available
Persistence / Degradability	Not available
Mobility	Not available
Bioaccumulative Potential	Not available
Environment Protection	Do not allow product to enter drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information	AUSTRALIA: This material is a Class 5.1 - Oxidising Agent according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. This material is incompatible in a placard load with any of the following: - Explosives (Class 1) - Flammable Gases (Class 2.1) - Toxic Gases (Class 2.3) - Flammable Liquids (Class 3) - Flammable Solids (Class 4.1) - Spontaneously Combustible Substances (Class 4.2)

- Dangerous When Wet Substances (Class 4.3)
- Organic Peroxides (Class 5.2)
- Toxic Substances (Class 6)(where the toxic substances are fire risk substances)
- Radioactive Substances (Class 7)
- Corrosive Substances (Class 8)
- Miscellaneous Dangerous Goods (Class 9)(where the miscellaneous dangerous goods are fire risk substances), and
- Combustible Liquids.

NEW ZEALAND:
This material is classified as a Class 5.1 Oxidising Substance according to NZS 5433:1999 Transport of Dangerous Goods on Land. This material material must not be loaded in the same freight container or on the same vehicle with:
- Explosives (Class 1)
- Flammable Gases (Class 2.1)
- Toxic Gases (Class 2.3)
- Flammable Liquids (Class 3),
- Spontaneously Combustible Substances (Class 4.2)
- Dangerous When Wet Substances (Class 4.3)
- Organic Peroxides (Class 5.2)
- Infectious substances (Class 6)
- Corrosive Substances (Class 8)

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:
- Flammable Solids (Class 4.1)
- Toxic Substances (Class 6)
- Radioactive Materials (Class 7) unless specifically exempted

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:
- Flammable Liquids (Class 3),
- Flammable Solids (Class 4.1)
- Spontaneously Combustible Substances (Class 4.2)
- Dangerous When Wet Substances (Class 4.3)
- Organic Peroxides (Class 5.2)
- Toxic Substances (Class 6)
- Infectious Substances (Class 6), and
- Corrosive Substances (Class 8)

U.N. Number 1477

Proper Shipping Name NITRATES, INORGANIC, N.O.S. - (COPPER NITRATE)

DG Class 5.1

Hazchem Code 1[Z]

Packaging Method 3.8.5.1

Packing Group II

EPG Number	5A1
IERG Number	31

15. REGULATORY INFORMATION

Regulatory Information	Australia: Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
Poisons Schedule	Not Scheduled
National and or International Regulatory Information	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Group Standard: Oxidising [5.1.1] Substances Group Standard 2006 HSNO Approval Number: HSR002631.
Hazard Category	Harmful,Irritant,Oxidising
AICS (Australia)	All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. **Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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