

# Material Safety Data Sheet

## Copper Reagent

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** Copper Reagent

**Catalog Numbers:** TR61001

**Use:** For the in vitro quantitative determination of Copper in serum on automated clinical chemistry analyzers.

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AUSTRALIA

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U.S.A

Chemtel

24 Hour Emergency Assistance

1-800-255-3924

### 2. HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO EU CRITERIA

**Hazard Category:** Harmful (Xn), Irritant (Xi)

**Hazard Classification:** HAZARDOUS SUBSTANCE, NON-DANGEROUS GOOD

**RISK PHRASES**

**Reagent 1**

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

**Reagent 2**

None allocated

**SAFETY PHRASES**

**Reagent 1**

S23 Do not breathe vapour.

**Reagent 2**

S23 Do not breathe vapour.

**Poison Schedule:** None allocated [Aust].

**Reagent 1 Warning Statement:**

Avoid inhaling of vapours. Avoid contact with skin and eyes.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
<b>Reagent 1</b>		
GUANIDINIUM CHLORIDE	30 to 60 %	50-01-1
WATER AND OTHER NON-HAZARDOUS SUBSTANCES	Balance	Mixture

All other ingredients not hazardous according to EU Criteria.

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### 4. FIRST AID MEASURES

**Swallowed:**

If swallowed, **DO NOT** induce vomiting. If conscious, give 1 to 2 glasses of water to drink. Seek immediate medical assistance.

**Eye:**

If material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eye lids are held open. If irritation persists transport to hospital or doctor.

**Skin:**

If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation persists transport to hospital or doctor.

**Inhaled:**

Move victim to fresh air. Apply resuscitation if victim is not breathing.

**First Aid Facilities:**

Eye wash fountain, safety shower and normal wash room facilities.

**Advice to Doctor:**

Treat symptomatically.

**In case of poisoning, contact Poisons Information Centre**

**In Australia call Tel: 131126**

**In New Zealand Tel: 034747000**

### 5. FIRE-FIGHTING MEASURES

**Fire/Explosion Hazard:**

If safe to do so, move undamaged containers from fire area.

**Suitable Extinguishing Media:**

Use extinguishing media suitable for surrounding fire situation.

**Hazards from Combustion Products:**

Decomposes on heating emitting oxides of carbon, nitrogen and noxious smoke.

**Precautions for Fire Fighters and Special Protective Equipment:**

Fire fighters to wear Self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.

**HAZCHEM Code:**

None allocated [Aust].

**Flammability:**

This material is not a flammable or combustible liquid.

### 6. ACCIDENTAL RELEASE MEASURES

**Emergency Procedures:**

Keep unnecessary people away; Isolate hazard area and deny entry. If product spills onto floors it will represent a slip hazard, walk cautiously. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS.

**Methods and Materials for Containment and Clean Up Procedures:**

Dike area using with an absorbent such as diatomaceous earth - to prevent run off into drains and waterways. Throw further absorbent (diatomaceous earth or other inert material) on top of spill, then shovel up and seal in properly labeled containers for disposal.

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### 7. HANDLING AND STORAGE

**Precautions for Safe Handling:**

Avoid breathing of vapour. For further information please refer to the Engineering Controls of this MSDS.

**Reagent 1:** Store away from oxidizing agents

**Conditions for Safe Storage:**

Keep containers tightly closed in a cool place and out of direct sunlight. Store at 2-25°C and the reagent will be stable until the expiry date stated on the bottle and kit box labels. Store in original packaging as approved by manufacturer.

**Reagent 2:** Store away from strong acids and oxidizers.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Standards**

No exposure standards have been assigned by [NOHSC] for this product or any of the components.

**Engineering Controls**

Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate.

**Personal Protection Equipment**

**Gloves:** The use of neoprene or nitrile rubber is recommended.

**Eyes:** Chemical goggles or face shield to protect eyes.

**Respiratory Protection:** Avoid breathing of vapours. Select and use respirators in accordance with AS/NZS 1715/1716. The use of a dust mask (disposable) or a half-face respirator with P1 filter is recommended (Reagent 1). Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

	Reagent 1	Reagent 2
<b>Appearance:</b>	Clear liquid with no odour	Clear liquid with no odour
<b>Boiling Point:</b>	Not available	Not available
<b>Freezing Point:</b>	Not available	Not available
<b>Vapour Pressure:</b>	Not available	Not available
<b>Specific Gravity:</b>	Not available	Not available
<b>Flash Point:</b>	Not applicable	Not available
<b>Flammability Limits:</b>	Not applicable	Not available
<b>Solubility in Water:</b>	Completely miscible	Completely miscible

**Other Properties**

**pH:** Not available Not available

### 10. STABILITY AND REACTIVITY

**Chemical Stability:**

Stable under normal conditions of use.

**Conditions to Avoid:****Reagent 1**

Ignition sources and mixing with incompatibles.

**Reagent 2**

Eye and prolonged skin contact and mixing with incompatibles.

**Incompatible Materials:****Reagent 1**

Strong mineral acids (sulfuric, nitric and hydrochloric), and oxidizing agents.

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### 10. STABILITY AND REACTIVITY (continued)

**Reagent 2**

Strong mineral acids and oxidizers.

**Hazardous Decomposition Products:**

Decomposes on heating emitting oxides of carbon, oxides of nitrogen and noxious smoke (Reagent 1 only).

**Hazardous Reactions:**

Will not occur.

### 11. TOXICOLOGICAL INFORMATION

**ACUTE HEALTH EFFECTS:****Swallowed:****Reagent 1**

Harmful if swallowed. May cause irritation to mouth, throat and stomach with effects including pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

**Reagent 2**

Drinking large quantities of this product may cause irritation to mouth, throat and stomach, which may lead to nausea, vomiting and diarrhoea.

**Eye:****Reagent 1**

Will cause irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision.

**Reagent 2**

May cause mild irritation to the eyes, with effects including: tearing and blurred vision. These effects are anticipated to be of a transient (short acting) nature and no long term injury is envisaged.

**Skin:****Reagent 1**

Will cause irritation to the skin, with effects including; Redness, itchiness, and drying/defatting.

**Reagent 2**

May cause mild irritation to the skin.

**Inhaled:****Reagent 1**

Vapours from the product may cause irritation to the nose, throat and respiratory system with effects including: Cough, discomfort, difficulty breathing and shortness of breath.

**Reagent 2**

May cause mild irritation to the respiratory system.

**Chronic:****Reagent 1**

The following applies to parasympathomimetic agents in general: after oral uptake and depending on the dose, these physiologically highly active substances cause salivation, rhinorrhoea, and in some cases also lacrimation, perspiration, contraction of the pupils, dizziness, vomiting, colic's, diarrhoea. Risk of collapse and cardiac arrest. Inhalation of dusts and aerosols leads to the above symptoms. Respiration is accelerated at first, then slows down.

**Reagent 2**

There is information available for this product.

**Toxicological Data:**

There is no other toxicological information available for this product, however, for the ingredient:

**Guanidinium Chloride:**

Oral LD50(rat): 475 mg/kg

Dermal LD50(rabbit): > 2,000 mg/kg

Inhalation LC50(rat): 5.3 mg/l/4 Hr

Severe eye and skin irritations in animal studies. No sensitising effects were observed.

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### 12. ECOLOGICAL INFORMATION

There is no ecological information available for this product, however, for the ingredient guanidinium chloride, Biodegradation was less than 70 % using a modified OECD screening test, which is considered to be non biodegradable. Guanidinium chloride is not anticipated to bioaccumulate. Effects on *L. idus* LC50 is in 1,759 mg/l/48 Hr. This substance may cause long term adverse effects in the environment, avoid contaminating drains, sewers or waterways.

### 13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor.

### 14. TRANSPORT INFORMATION

#### Road Transport

**UN Number:** None allocated

**Proper Shipping Name:** NONE ALLOCATED

**Dangerous Goods Class:** None allocated

**Packing Group:** None allocated

**Label:** Harmful (Xn)

#### Air Transport

**UN Number:** None allocated

**Proper Shipping Name:** NONE ALLOCATED

**Dangerous Goods Class:** None allocated

**Packing Group:** None allocated

**Label:** Harmful (Xn)

#### Sea Transport

**UN Number:** None allocated

**Proper Shipping Name:** NONE ALLOCATED

**Dangerous Goods Class:** None allocated

**Packing Group:** None allocated

**Label:** Harmful (Xn)

### 15. REGULATORY INFORMATION

**Poison Schedule:** None allocated [Aust].

#### Inventory Status:

Australia (AICS)	Y
United States (TSCA)	Y
Canada (DSL)	Y
Europe (EINECS/ELINCS)	Y
Japan (MITI)	Y
South Korea (KECL)	Y

Y = all ingredients are on the inventory.

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### 16. OTHER INFORMATION

**Date of Preparation:**

Issue date: January, 2005

**Reasons for Update:**

1. Alignment with the 2<sup>nd</sup> Edition of National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2001(2003).
2. Changes and /or addition made to all sections.

**Key Legend Information:**

NOHSC - National Occupational Health & Safety Commission [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust]

AS/NZS 1716 - Respiratory protective devices. [Aust]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization [Int]

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods [Int]

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labeling of Chemicals. [Int]

EU - European Union

[Aust/NZ] = Australian/New Zealand

[Int] = International

[US] = United States of America

**Principal References:**

Information supplied by manufacturer, reference sources including the public domain.

**Disclaimer**

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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**END OF MSDS**