

# Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

Chemical Name Copper(I) Cyanide

Catalogue C685290

### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Uses To be used only for scientific research and development. Not for use in humans or animals.

### 1.3 Details of the Supplier of the Safety Data Sheet

Company Will be updated as per company.

$\text{N}\equiv\text{C}-\text{Cu}$

### 1.4 Emergency Telephone Number

Emergency Will be updated as per company.

## 2. HAZARDS IDENTIFICATION

### 2.1/2.2 Classification of the Substance or Mixture and Label Elements

#### GHS Hazards Classification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Acute Toxicity, Oral (Category 2)  
Acute Toxicity, Inhalation (Category 2)  
Acute Toxicity, Dermal (Category 1)  
Hazardous to the Aquatic Environment, Acute Hazard (Category 1)  
Hazardous to the Aquatic Environment, Long-Term Hazard (Category 1)

#### GHS Hazards Identification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Signal Word Danger



#### GHS Hazard Statements

H300 Fatal if swallowed.  
H330 Fatal if inhaled.  
H310 Fatal in contact with skin.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

#### GHS Precautionary Statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray Wash hands  
P264 thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P284 In case of inadequate ventilation, wear respiratory protection.  
P301/P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302/P350 IF ON SKIN: Gently wash with plenty of soap and water.  
P310 Immediately call a POISON CENTER or doctor/physician

**2.3 Unclassified Hazards/Hazards Not Otherwise Classified**

No data available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

**Molecular Formula:** CCuN

**Molecular Weight:** 89.56

**CAS Registry #:** 544-92-3

**EC#:** 208-883-6

**Synonyms**

Copper Cyanide; Copper Monocyanide; Copper(1+) Cyanide; Copper(I) Cyanide; Cupricin; Cuprous Cyanide

**3.2 Mixtures**

Not a mixture.

**4. FIRST AID MEASURES****4.1 Description of First Aid Measures****General Advice**

If medical attention is required, show this safety data sheet to the doctor.

**If Inhaled**

If inhaled, move person to fresh air. If not breathing, give artificial respiration and consult a physician.

**In Case of Skin Contact**

Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed.

**In Case of Eye Contact**

Immediately rinse eyes with plenty of water for at least 15 minutes. Consult a physician.

**If Swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention.

**4.2 Most Important Symptoms and Effects, Both Acute and Delayed**

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or section 11.

**4.3 Indication of any Immediate Medical Attention and Special Treatment Needed**

No data available.

**5. FIREFIGHTING MEASURES****5.1 Extinguishing Media**

Dry powder

**5.2 Special Hazards Arising from the Substance or Mixture**

Carbon oxides, Nitrogen oxides

**5.3 Advice for Firefighters**

Wear self contained breathing apparatus for fire fighting if necessary. Use personal protection equipment.

**5.4 Further Information**

No data available.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Avoid contact with skin, eyes or clothing.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## Method and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

### 7.2 Conditions for safe storage#

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

Storage conditions:

### 7.3 Specific End Uses

For scientific research and development only. Not for use in humans or animals.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control Parameters

#### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Copper cyanide	544-92-3	C	10.000000 ppm 11.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

**Remarks** A substance which may not be recirculated in accordance with section 108  
Skin (percutaneous)

C 5.000000 mg/m3 Canada. British Columbia OEL

Contributes significantly to the overall exposure by the skin route.

C 5.000000 mg/m3 USA. ACGIH Threshold Limit Values (TLV)

### 8.2 Exposure Controls

#### Appropriate Engineering Controls

A laboratory fumehood or other appropriate form of local exhaust ventilation should be used to avoid exposure.

#### Personal Protective Equipment

All recommendations below are advisory in nature and a risk assessment should be performed by the employer/end user prior to use of this product. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

#### Eye/Face Protection

Safety goggles or face shield. All equipment should have been tested and approved under appropriate standards, such as NIOSH (US), CSA (Canada), or EN 166 (EU).

#### Skin Protection

Gloves should be used when handling this material. Gloves are to be inspected prior to use. Contaminated gloves are to be removed using proper glove removal technique so that the outer surface of the glove does not contact bare skin. Dispose of contaminated gloves after use in compliance with good laboratory practices and local requirements.

Gloves used for incidental exposures (splash protection) should be designated as "chemical resistant" by EU standard EN 374 with the resistance codes corresponding to the anticipated use of the material. Unrated gloves are not recommended.

Suggested gloves: AnsellPro Sol-Vex nitrile gloves style 37-175, 15 mil thickness.

Penetration time has not been determined.

Gloves used for prolonged direct exposure (immersion) should be designated "chemical resistant" as per EN 374 with the resistance codes corresponding to the anticipated use of the material.

Suggested gloves: AnsellPro Viton/Butyl gloves style 38-612, 4/8 mil thickness.

Penetration time has not been determined.

These recommendations may not apply if the material is mixed with any other chemical, or dissolved into a solution. A risk assessment must be performed to ensure the gloves will still offer acceptable protection.

#### Body Protection

# Will be updated as per company.

Page 3

This Safety Data Sheet contains 16 sections. All 16 sections must be present for this document to be valid.

Fire resistant (Nomex) coveralls or chemical-resistant bodysuit (laminated Tychem SL or equivalent).

### Respiratory Protection

Recommended respirators are NIOSH-approved N100 or CEN-approved FFP3 particulate respirators. These are to be only used as a backup to local exhaust ventilation or other engineering controls. If the respirator is the only means of protection, a full-face supplied air respirator must be used.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical and Chemical Properties

#### A) Appearance

No Data Available

#### C) Odour Threshold

No data available

#### E) Melting Point/Freezing Point

No Data Available

#### G) Flash point

No data available

#### I) Flammability (Solid/Gas)

No data available

#### K) Vapour Pressure

No data available

#### M) Relative Density

No data available

#### O) Partition Coefficient: n-octanol/water

No data available

#### Q) Decomposition Temperature

No data available

#### S) Explosive Properties

No data available

#### B) Odour

No data available

#### D) pH

No data available

#### F) Initial Boiling Point/Boiling Range

No data available

#### H) Evaporation Rate

No data available

#### J) Upper/Lower Flammability/Explosive Limits

No data available

#### L) Vapour Density

No data available

#### N) Solubility

No Data Available

#### P) Auto-Ignition Temperature

No data available

#### R) Viscosity

No data available

#### T) Oxidizing Properties

No data available

### 9.2 Other Information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical Stability

Stable under recommended storage conditions.

### 10.3 Possibility of Hazardous Reactions

No data available.

### 10.4 Conditions to Avoid

No data available.

### 10.5 Incompatible Materials

Acids, Oxidizing agents, Bases, Nitrates, Magnesium.

### 10.6 Hazardous Decomposition Products

In the event of fire: See section 5. Other decomposition products: No data available.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on Toxicological Effects

#### A) Acute Toxicity

Oral LD50: Rat - 1,265 mg/kg

Dermal LD50: No data available.

Inhalation LC50: No data available.

#### B) Skin Corrosion/Irritation

No data available

#### C) Serious Eye Damage/Irritation

No data available

#### D) Respiratory or Skin Sensitization

No data available

#### E) Germ Cell Mutagenicity

No data available

#### **F)Carcinogenicity**

No data available

#### **G)Reproductive Toxicity/Teratogenicity**

No data available

#### **H)Single Target Organ Toxicity - Single Exposure**

No data available

#### **I)Single Target Organ Toxicity - Repeated Exposure**

No data available

#### **J)Aspiration Hazard**

No data available

#### **K)Potential Health Effects and Routes of Exposure**

##### **Inhalation**

May be fatal if inhaled. May cause respiratory tract irritation.

##### **Ingestion**

May be fatal if swallowed.

##### **Skin**

May be fatal if absorbed through skin. May cause skin irritation.

##### **Eyes**

May cause eye irritation.

#### **L)Signs and Symptoms of Exposure**

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or section 11.

To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated.

#### **M)Additional Information**

RTECS: GL7150000

## **12. ECOLOGICAL INFORMATION**

### **12.1Toxicity**

No data available.

### **12.2Persistence and Degradability**

No data available.

### **12.3Bioaccumulative Potential**

No data available.

### **12.4 Mobility in Soil**

No data available.

### **12.5Results of PBT and vPvB Assessment**

No data available.

### **12.6Other Adverse Effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste Treatment Methods**

#### **A) Product**

Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed.

#### **B)Contaminated Packaging**

Dispose of as above.

#### **C)Other Considerations**

Product is not to be disposed of in sanitary sewers, storm sewers, or landfills.

## **14. TRANSPORT INFORMATION**

### **14.1UN Number**

DOT (US): UN1587

IATA: UN1587

IMDG: UN1587

ADR/RID: UN1587

### **14.2UN Proper Shipping Name**

DOT (US)/IATA:

Copper cyanide

IMDG/ARD/RID:  
COPPER CYANIDE

**14.3Transport Hazard Class(es)**

DOT (US): 6.1

IATA: 6.1

IMDG: 6.1

ADR/RID: 6.1

**14.4Packing Group**

DOT (US): II

IATA: II

IMDG: II

ADR/RID: II

**14.5Environmental Hazards**

DOT (US): None

IATA: None

IMDG: Marine pollutant

ADR/RID: None

**14.6Special Precautions for User**

None

**15. REGULATORY INFORMATION**

This safety data sheet complies with the requirements of WHMIS (Canada), OSHA 1910.1200 (US), and EU Regulation EC No. 1907/2006 (European Union).

**15.1Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**

**A) Canada**

**DSL/NDSL Status:** This product or a component of this product is registered on the Canadian DSL/NDSL.

**B) United States**

**TSCA Status:** This product or a component is listed on the US EPA TSCA.

**C) European Union**

**ECHA Status:** This product or a component is registered with the EU ECHA.

**15.2Chemical Safety Assessment**

No data available

**16. OTHER INFORMATION**

**16.1Revision History**

Original Publication Date: N/A

**16.2List of Abbreviations**

LD50	Median lethal dose of a substance required to kill 50% of a test population.
LC50	Medial lethal concentration of a substance required to kill 50% of a test population.
LDLo	Lowest known lethal dose
TDLo	Lowest known toxic dose
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances

**16.3Further Information**

Copyright 2015. Copies may be made for internal use only. The above information is believed to be correct to the best of our knowledge, but is to be only used as a guide. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Please take all due care when handling this product.

**Disclaimer**

**The Final Document will be available at the time of consignment.**

**# Can vary as per company.**

**End of Safety Data Sheet**