

SAFETY DATA SHEET



Copper Cyanide, Dustless

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

GHS Product Information

Product Name: Copper Cyanide, Dustless
Business Unit: PhibroChem
Other means of identification: Not available

Safety data sheet number: 2036-200 -US-E

Recommended use of the chemical and restrictions on use

Recommended use: No information available.

Uses advised against: No information available

Details of the supplier of the safety data sheet

Supplier:

Phibrochem
Glenpointe Centre East, 3rd FL
300 Frank W. Burr Blvd., Ste 21
Teaneck, NJ 07666-6712
Tel: (201) 329-7300
Toll free: (888) 475-7355
Fax: (201) 329-7070

SDS Contact (email of responsible person): phibroehs@pahc.com

24 Hour Emergency Phone Number: Chemtrec 1-800-424-9300 (CCN17224)

International: +1 703-527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 2
Acute toxicity - Dermal	Category 1
Acute toxicity - Inhalation (Dusts/Mists)	Category 2

Label elements

Emergency Overview

Danger

Hazard statements

Fatal if swallowed
 Fatal in contact with skin
 Fatal if inhaled



Appearance powder

Physical state Solid

Odor Almond

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not get in eyes, on skin, or on clothing
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear respiratory protection

IF ON SKIN: Gently wash with plenty of soap and water
 Immediately call a POISON CENTER or doctor/physician
 Remove/Take off immediately all contaminated clothing
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

Other hazards

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture Mixture

Chemical Name	CAS No	Weight-%	Trade Secret
Copper(I) cyanide	544-92-3	60 - 100	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

- General advice:** Immediate medical attention is required.
- Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.
- Inhalation:** Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
- Skin Contact:** Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
- Ingestion:** Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water.
- Self-protection of the first aider:** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Symptoms: No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical: No information available.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal precautions:** Use personal protective equipment as required. Keep people away from and upwind of spill/leak.
- For emergency responders:** Use personal protection recommended in Section 8. Use personal protective equipment as required.
- Environmental precautions:** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up: Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

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Personal precautions: Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

For emergency responders: Use personal protection recommended in Section 8. Use personal protective equipment as required.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

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7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible materials: None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	CAS No	ACGIH TLV	OSHA PEL	NIOSH IDLH
Copper(I) cyanide	544-92-3	TWA: 1 mg/m ³ Cu dust and mist	TWA: 5 mg/m ³ CN (vacated) TWA: 5 mg/m ³ S*	IDLH: 100 mg/m ³ Cu dust and mist IDLH: 25 mg/m ³ CN TWA: 1 mg/m ³ Cu dust and mist

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls: Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

General Hygiene Considerations: When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

Eye/face protection: Tight sealing safety goggles.

Skin and body protection: No special technical protective measures are necessary.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	Almond
Appearance	powder	Odor threshold	No information available
Color	white, Light, Tan		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting Point / Freezing Point	= 883 °F	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	2.92	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available
Percent Volatile	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information: No data available

Inhalation: No data available.

Eye contact: No data available.

Skin Contact: No data available.

Ingestion: No data available.

Chemical Name	CAS No	Oral LD50	Dermal LD50	Inhalation LC50
Copper(I) cyanide	544-92-3	= 1265 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms: No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive toxicity: No information available.

STOT - single exposure: No information available.

STOT - repeated exposure: No information available.

Chronic toxicity: Prolonged or repeated exposure increases the risk. Possible risk of irreversible effects. May cause adverse liver effects.

Target Organ Effects: Eyes, kidney, liver, Respiratory system, Skin.

Aspiration hazard: No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document . mg/kg mg/l 1360

12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

Ecotoxicity

Very toxic to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal. Disposal should be in accordance with applicable regional, national and local laws and regulations. Avoid runoff to waterways and sewers. Recover or recycle if possible. Send to a licensed recycler, reclaimer or incinerator.

Disposal methods: Do not reuse container.

14. TRANSPORT INFORMATION

Note: Store in a closed container. Keep container upright.

DOT

UN/ID no	UN1587
Proper shipping name	Copper cyanide
Hazard Class	6.1
Packing Group	II
Special Provisions	IB8, IP2, IP4, T3, TP33
Marine pollutant	This product contains a chemical which is listed as a severe marine pollutant according to DOT.
Description	UN1587, Copper cyanide, 6.1, II, ,
Emergency Response Guide Number	151

IATA

UN/ID no	UN1587
Proper shipping name	Copper cyanide
Hazard Class	6.1
Packing Group	II
ERG Code	6L
Description	UN1587, Copper cyanide, 6.1, II

IMDG

UN/ID no	UN1587
Proper shipping name	Copper cyanide
Hazard Class	6.1
Subsidiary hazard class	P
Packing Group	II
EmS-No	F-A, S-A

Marine pollutant This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO
Description UN1587, Copper cyanide, 6.1 (P), II,

15. REGULATORY INFORMATION

International Inventories

TSCA: Complies
DSL/NDSL: Complies
EINECS/ELINCS: Complies
ENCS: Not Determined
IECSC: Complies
KECL: Complies
PICCS: Complies
AICS: Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	SARA 313 - Threshold Values %
Copper(I) cyanide	544-92-3	1.0

SARA 311/312 Hazard Categories

Acute health hazard No
Chronic Health Hazard Yes
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CAS No	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper(I) cyanide	544-92-3	-	X	X	-

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	CAS No	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Copper(I) cyanide	544-92-3	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	CAS No	California Proposition 65
Copper(I) cyanide	544-92-3	Carcinogen Male Reproductive

U.S. State Right-to-Know Regulations

No information available

Chemical Name	CAS No	New Jersey	Massachusetts	Pennsylvania
Copper(I) cyanide	544-92-3	X	X	X

Canada

No information available

16. OTHER INFORMATION

NFPA	Health hazards 3	Flammability 0	Instability 0	Physical & Chemical Properties 0
HMIS	Health hazards 3	Flammability 0	Physical hazards 0	Personal protection J

Document Review

Revision Number: 3

Revision Note: No information available

Key or legend to abbreviations and acronyms used in the safety data sheet:
 Bioconcentration factor (BCF)
 International Air Transport Association (IATA)
 Globally Harmonized System (GHS)
 International Maritime Dangerous Goods (IMDG)

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End of Safety Data Sheet