

MATERIAL SAFETY DATA SHEET

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Chemical Name		<p>Cupric Carbonate, Basic</p> <p><small>PRIDE-CHEM INDUSTRIES PTE LTD DISCLAIMER: THE INFORMATION AND RECOMMENDATIONS PRESENTED HEREIN ARE BASED ON SOURCES BELIEVED TO BE RELIABLE. CRC MAKES NO REPRESENTATION ON ITS COMPLETENESS OR ACCURACY. IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE CHEMICAL'S SUITABILITY FOR ITS INTENDED USE, THE CHEMICAL'S SAFE USE, AND THE CHEMICAL'S PROPER DISPOSAL. NO REPRESENTATIONS AND/OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE, ARE MADE WITH RESPECT TO THE INFORMATION PROVIDED IN THIS MSDS OR TO THE CHEMICAL TO WHICH INFORMATION MAY REFER. PRIDE-CHEM INDUSTRIES PTE LTD NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT, ANY OTHER ADDITIONAL RESPONSIBILITY OR LIABILITY FOR THE USE OF, OR RELIANCE UPON, THIS INFORMATION.</small></p>					
SECTION 1 : PRODUCT AND COMPANY INFORMATION							
Characterization				Product Name			
Powder				Cupric Carbonate			
DOT Proper Shipping Name				Chemical Formula			
Not Regulatory				CuCO₃-Cu(OH)₂			
DOT Hazard Class and Label Requirements			DOT Abstract Service (CAS) Number		NIOSH No.		
Not Regulatory			12069-69-1				
DOT Identification Number				Synonyms			
Not Regulatory				Copper(II) Carbonate Hydroxide			
SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS							
Hazardous Components							
Cupric Carbonate, Basic 95%							
SECTION 3 : HAZARDS IDENTIFICATION							
Health	Fire	Reactive	Contact	Degree of Hazard	Colour Coding	Other Codes	
3	1	1	2	0 = No Hazard 1 = Slight Hazard 2 = Moderate Hazard 3 = Serious Hazard 4 = Severe Hazard	Health = Blue Fire = Red Reactivity = Yellow Other = White	OX = Oxidizer ACID = Acid ALK = Alkali COR = Corrosive W = Use No Water	
SECTION 4 : FIRST AID MEASURES							
Hazard Rating				Type of Hazard			
Caution				Warning! Harmful if swallowed. Affects the liver and kidneys. Causes irritation to skin, eyes and respiratory tract.			
Product Inhalation				Emergency and First-aid Procedures			
Causes irritation to respiratory tract, symptoms may include coughing, sore throat, and shortness of breath. May result in ulceration and perforation of respiratory tract. When heated, this compound may give off copper fume, which can cause symptoms similar to the common cold, including chills and stuffiness of the head.				Remove from exposure to fresh air keep warm and at rest. If respondent is under respiratory distress, give oxygen. If breathing stops or shows signs of failing, apply artificial respiration. Obtain medical attention urgently.			
Product on Skin				Emergency and First-aid Procedures			
Causes irritation, redness and pain. Contact with extensively burned skin may cause poisoning.				Immediately wash with plenty of water, continue washing for at least 15 minutes, occasionally lifting eyelids. Wash with plenty of water and soap. Seek medical attention. Contaminated clothing should be washed thoroughly before re-use.			
Product on Eye				Emergency and First-aid Procedures			
May cause irritation, redness, pain, blurred vision, and discoloration. May produce corneal opacity, inflammation and conjunctivitis.				Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician immediately.			
Product Ingestion				Emergency and First-aid Procedures			
May cause burning pain in the mouth, esophagus and stomach. Hemorrhagic gastritis, nausea, vomiting, abdominal pain, metallic taste and diarrhea may occur. If vomiting does not occur immediately systemic copper poisoning may occur. Symptoms may include capillary damage, headache, cold sweat, weak pulse, 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.							

SECTION 5 : FIRE FIGHTING MEASURES		
Flash Point	N.A.	Auto-Ignition temperature N.A.
		Explosive Limit (LEL) N.A.
Extinguishing Media Use extinguishing agent such as dry powder extinguishers and dry sand or suitable for the type of surrounding fire. Water spray may be used to keep fire exposed containers cool.		
Special Fire Fighting Procedures Wear full protective clothing and "NIOSH/MSHA approved" self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure demand or other positive pressure mode. Heat will build pressure and may rupture closed storage containers.		
Fire & Explosive Hazard <p style="text-align: center;">N.A.</p>		
SECTION 6 : ACCIDENTAL RELEASE MEASURES		
Steps to be taken in case of Material Release or Spillage Cleanup workers must wear protective clothing, goggles, respiratory protection & equipment to prevent body contact. Stop spill if you can without risk. Preferred clean-up procedure: With clean shove, carefully transfer the powder to a clean, dry container and cover it tightly. Flush clean-up area with water. For large leakage of cupric carbonate, shove up powder with vacuum equipment or pump for disposal, or flush holding area with water. Notify local authorities if flushed spillage unavoidably enters public sewer or water systems.		
SECTION 7 : HANDLING AND STORAGE		
Precautions to be taken in Handling and Storage Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.		
Unsuitable:	N.A.	Suitable: N.A.
SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION		
Respiratory Protection If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.		
Ventilation <p style="text-align: center;">Local exhaust ventilation or general mechanical systems general is recommended.</p>		
Eyes Protection <p style="text-align: center;">Chemical goggles and/or Face mask</p>		
Skin Protection Butyl Rubber gloves, rubber boots with protective clothing or coverall to be worn when handling. Safety showers and eyewash should be provided nearby where skin contact can occur.		
Other Additional Protective Measures Always wash hands thoroughly after handling chemical; never bring food, drink or smoking materials into vicinity of chemicals.		
SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES		
Boiling point	N.A	Specific Gravity (H ₂ O=1) 4.00
Vapour Pressure (MM HG)	N.A.	Molecular Weight 221.13
Vapour Density (Air=1)	N.A.	Melting Point 200°C (392F)
Solubility in water <p style="text-align: center;">Insoluble in water</p>		
Synonyms <p style="text-align: center;">Copper (II) carbonate hydroxide</p>		
Appearance and Odour <p style="text-align: center;">Green Powder, Odorless</p>		
SECTION 10 : STABILITY AND REACTIVITY		
Stability	Condition to avoid Incompatibles	
Stable	Incompatibility Sodium hypobromite, acetylene, hydrazine, nitromethane and strong acids.	

Hazardous Polymerization Will not Occur	Conditions to Avoid	N.A.			
	Incompatibility	N.A.			
Section 11 : TOXICOLOGICAL INFORMATION					
Hazard Rating Moderate		Toxicity LD₅₀ (Oral Rat) : N.A			
Permissible Exposure Limit (PEL) : 1 mg/m³		Short-Term Exposure Limit (STEL) : N.A.		Threshold Limit Value (TLV/TWA) : 1 mg/m³	
SECTION 12 : ECOLOGICAL INFORMATION					
Acute Ecological Effects When released into the soil, this material is not expected to biodegrade. When released into water, this material is not expected to biodegrade. When released into water, this material is not expected to evaporate significantly.					
Chronic Ecological Effects N.A					
SECTION 13 : DISPOSAL CONSIDERATIONS					
Waste Disposal Method Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options.					
SECTION 14 : TRANSPORT & PACKAGING INFORMATION					
N.A					
SECTION 15 : REGULATORY INFORMATION					
Chemical Inventory Status - Part 1					
Ingredient		TSCA	EC	Japan	Australia
Copper(II) Carbonate Hydroxide (12069-69-1)		Yes	Yes	Yes	Yes
Chemical Inventory Status - Part 2					
Ingredient			Canada		
Copper(II) Carbonate Hydroxide (12069-69-1)		Korea	DSL	NDSL	Phil.
		Yes	Yes	No	Yes
Federal, State & International Regulations - Part 1					
Ingredient		SARA 302		SARA 313	
Copper(II) Carbonate Hydroxide (12069-69-1)		RQ TPQ	List	Chemical Catg.	
		No No	No	Copper compo	
Federal, State & International Regulations - Part 2					
Ingredient		RCRA		TSCA	
Copper(II) Carbonate Hydroxide (12069-69-1)		CERCLA	261.33	8(d)	
		No	No	No	
Chemical Weapons Convention: No TSCA 12(b): No CDTA: No					
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No					
Reactivity: No (Pure / Solid)					
SECTION 16 : OTHER INFORMATION					
NFPA Ratings: Health: 2 Flammability: 0 Reactivity: 0					
Label Hazard Warning: WARNING! HARMFUL IF SWALLOWED. AFFECTS THE LIVER AND KIDNEYS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.					
Label Precautions: Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.					
Label First Aid: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. In case of contact, wipe off excess material from skin then immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician.					
Product Use: Laboratory Reagent.					