



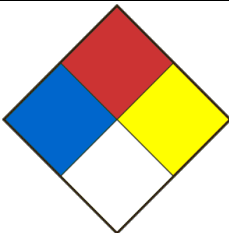
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier COPPER (POWDER)		Product Use Laboratory use	
Chemical formula Cu		Product code CR-0164	Molar weight 63,54
Chemical name / Commercial name / Synonymous COPPER POWDER			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 10/31/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Acute toxicity - Oral category 4 Lésions oculaires graves/irritation oculaire category 2B
Signal Word	WARNING
Hazards statements (H)	H302 Harmful if swallowed. H320 Causes eye irritation.
Precautionary statements (P)	P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do not eat, drink or smoke when using this product. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P330 Rinse mouth. P337 + P313 If eye irritation persists: Get medical advice/attention. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 1 Fire 1 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Cuivre	7440-50-8	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Fine dust in sufficient concentration may be combustible, or explode if confined to a small space and subject to a source of ignition.
Suitable extinguishing media	Powdery graphite, dolomite, sodium chloride, ABC extinguisher, carbon dioxide.
Unsuitable extinguishing media	Do not use water. Do not use halon fire extinguishers.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. - Copper oxides
Special fire and explosion hazards	Copper reacts violently with the following products: acetylene, sulfuric acid, trichloroacetic acid, ammonium nitrate, bromates, chlorates, chlorine, chlorine trifluoride, dimethyl sulfoxide, ethylene, fluorine, hydrazine, peroxide and hydrogen sulfide, iodates, lead azide, potassium peroxide, sodium azide and sodium peroxide. May form combustible dust concentrations in the air. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Cut off all sources of ignition. Pick up with a broom, taking care not to scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. When handling, wear appropriate safety equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, air, moisture and incompatible products. Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Air sensitive.
Methods of handling	Provide appropriate exhaust ventilation at places where dust or vapor is formed.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Copper	7440-50-8	TWA	1.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks				
		TWA	1.000000 mg/m3	Canada. British Columbia OEL
		TWAEV	1.000000 mg/m3	Canada. Ontario OELs
		TWAEV	1.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.200000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	0.200000 mg/m3	Canada. British Columbia OEL
		TWAEV	0.200000 mg/m3	Canada. Ontario OELs
	TWAEV 0.200000 mg/m3 Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants			
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		TWA	1.000000 mg/m3	Canada. British Columbia OEL
		TWA	0.200000 mg/m3	Canada. British Columbia OEL
		TWA	1 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWAEV	1 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWAEV	0.2 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	1 mg/m3	Canada. British Columbia OEL
		TWA	0.2 mg/m3	Canada. British Columbia OEL
		TWA	1.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.200000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.200000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich.
Ventilation	Proper ventilation or hood.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Poudre fine de couleur rougeâtre.
Odour	Donnée non disponible.
Odour threshold	Data not available
pH	Donnée non-disponible.
Melting point / Freezing point	1083°C
Initial boiling point	2595°C
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Vapour density	Data not available
Relative density	8.94g/ml
Solubility	Insoluble dans l'eau.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May form combustible dust concentrations in the air. May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	This product may discolour (greenish) if exposed to air and moisture.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), acetylene, strong acids, acid chlorides, alkalis, ammonium nitrate, azides, bromates, chlorates, dimethylsulfoxide, ethylene oxide, halogens, hydrazine, hydrogen sulfide, iodates, air and moisture.
Materials to avoid	Strong acids, Strong oxidizing agents, Acid chlorides, Halogens.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Copper oxides

SECTION 11 - TOXICOLOGICAL INFORMATION

COPPER (POWDER)

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and may cause inflammation of the conjunctiva.
- Skin	Irritation.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, fever, seizures, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Blood disorders, liver and kidney damage, gastrointestinal disorders, cramps, headache, dizziness, sweating, salivation, tachycardia, seizures, nausea and vomiting. May be fatal if ingested in high doses.
Chronic exposure effects / symptoms	Burning sensation, conjunctivitis, blood disorders, liver, kidney and lung damage, chest pain, cough, dyspnea, laryngitis, headache, dizziness, tearing, confusion, irritability, fatigue, fever, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Intraperitoneal - Mouse - 3.5 mg/kg. LD50 Dermal: Data not available
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Data not available.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Toxic to aquatic life. All littering must be avoided in the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Acute toxicity - Oral category 4 Lésions oculaires graves/irritation oculaire category 2B
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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