

Material Safety Data Sheet



Copper Oxide 75%

1. Product and company identification

Common name : Copper Oxide 75%
Material uses : Feed Ingredients.
Supplier/Manufacturer : Pestell Minerals & Ingredients
141 Hamilton Road
New Hamburg, Ontario
Canada, N3A 2H1
Tel : (519) 662-2877
Fax : (519) 662-6242
E-mail: pestellgroup@pestell.com
In case of emergency : CANUTEC (613) 996-6666
MSDS authored by: : Kemika XXI Inc. + 1-450-435-7475

11/30/2009

2. Hazards identification

Physical state : Solid. (Fine powder.)
Odor : Odorless.
Color : Black. (Dark.)
Hazard status : This material is classified hazardous under OSHA regulations in the United States and the WHMIS Controlled Product Regulation in Canada.
Emergency overview : WARNING !
CANCER HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
HARMFUL IF INHALED.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
KIDNEYS, LIVER, CARDIOVASCULAR SYSTEM, RESPIRATORY TRACT, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF SWALLOWED.
Do not ingest. Avoid contact with skin and clothing. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.
Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects
Eyes : Irritating to eyes.
Skin : Irritating to skin.
Inhalation : Harmful by inhalation. Irritating to respiratory system.
Ingestion : May be harmful if swallowed.
Potential chronic health effects : Carcinogenic effects Classified 1 (Proven for humans.) by IARC [Talc]. Classified None. by NIOSH [Talc]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Talc].
Mutagenic effects Not available.
Teratogenic effects Not available.
Medical conditions aggravated by over-exposure : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated or prolonged exposure to the substance can produce target organ damage.

See toxicological information (section 11)

3 . Composition/information on ingredients

United States

Name	CAS number	%
Copper oxide	1317-38-0	60 - 100
Talc	14807-96-6	5 - 10
Dicopper oxide	1317-39-1	1 - 5

Canada

Name	CAS number	%
Copper oxide	1317-38-0	60 - 100
Talc	14807-96-6	5 - 10
Dicopper oxide	1317-39-1	1 - 5

4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

- Flammability of the product** : Non-flammable.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
 - Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

7 . Handling and storage

- Handling** : Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States

Product name

Copper oxide

Exposure limits

NIOSH REL (United States, 12/2001).

TWA: 0.1 mg/m³ 10 hour(s). Form: Fume

ACGIH TLV (United States).

TWA: 1 mg/m³ 8 hour(s). Form: Dust (as Copper)

OSHA PEL (United States).

TWA: 1 mg/m³ 8 hour(s). Form: Dust (as Copper)

Talc

ACGIH TLV (United States, 1/2005).

TWA: 2 mg/m³ 8 hour(s). Form: All forms.

NIOSH REL (United States, 12/2001).

TWA: 2 mg/m³ 10 hour(s). Form: Respirable fraction

OSHA PEL 1989 (United States, 3/1989).

TWA: 2 mg/m³ 8 hour(s). Form: Respirable dust

Canada

Product name

Copper oxide

Exposure limits

ACGIH TLV (United States).

TWA: 1 mg/m³ 8 hour(s). Form: Dust (as Copper)

Talc

ACGIH TLV (United States, 1/2005).

TWA: 2 mg/m³ 8 hour(s). Form: All forms.

- Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Eyes : Safety glasses.

Skin : Synthetic apron.

Respiratory : Vapor respirator.

Hands : Nitrile gloves.



HMIS Code/Personal protective equipment : J

Personal protection in case of a large spill : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.

Hygiene measures : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

Physical state	: Solid. (Fine powder.)
Color	: Black. (Dark.)
Odor	: Odorless.
Melting/freezing point	: Weighted average: 1049.53°C (1921.2°F)
Relative density	: Weighted average: 5.86 (Water = 1)
Solubility	: Insoluble in cold water, hot water.

10 . Stability and reactivity

Stability and reactivity	: The product is stable.
Incompatibility with various substances	: Reactive with oxidizing materials and acids.
Hazardous polymerization	: Will not occur.
Conditions of reactivity	: Not available.

11 . Toxicological information

Toxicity data				
Product/ingredient name	Test	Result	Route	Species
Dicopper oxide	LD50	470 mg/kg	Oral	Rat

Acute Effects

Eyes	: Irritating to eyes.
Skin	: Irritating to skin.
Inhalation	: Harmful by inhalation. Irritating to respiratory system.
Ingestion	: May be harmful if swallowed.
Potential chronic health effects	: Carcinogenic effects Classified 1 (Proven for humans.) by IARC [Talc]. Classified None. by NIOSH [Talc]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Talc]. Mutagenic effects Not available. Teratogenic effects: Not available.
Target organs	: Contains material which causes damage to the following organs: kidneys, liver, cardiovascular system, upper respiratory tract, eye, lens or cornea.

12 . Ecological information

Ecotoxicity data			
Product/ingredient name	Species	Period	Result
Copper oxide	Oncorhynchus mykiss (LC50)	96 hour(s)	25.4 mg/l

Environmental precautions	: TOXIC TO AQUATIC ORGANISMS. May cause long-term adverse effects in the aquatic environment.
Products of degradation	: Some metallic oxides.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

14 . Transport information

Regulatory information

UN/ IMDG/IATA DOT/ TDG : Not regulated.

15 . Regulatory information

United States

HCS Classification : Toxic material
Irritating material
Carcinogen
Target organ effects

U.S. Federal regulations : TSCA 6 proposed risk management: Lead
TSCA 8(b) inventory: All components listed.
TSCA 12(b) annual export notification: Lead
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Talc; Dicopper oxide
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Talc:
Immediate (acute) health hazard; Dicopper oxide: Immediate (acute) health hazard,
Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Copper oxide; Dicopper oxide; Copper; Lead; Cadmium;
Arsenic
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Copper oxide	1317-38-0	60 - 100
	Dicopper oxide	1317-39-1	1 - 5
Supplier notification	Copper oxide	1317-38-0	60 - 100
	Dicopper oxide	1317-39-1	1 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : Pennsylvania RTK: Copper oxide: (environmental hazard, generic environmental hazard); Talc: (generic environmental hazard); Dicopper oxide: (environmental hazard, generic environmental hazard); Copper: (environmental hazard, generic environmental hazard); Lead: (environmental hazard, generic environmental hazard); Cadmium: (special hazard, environmental hazard, generic environmental hazard); Arsenic: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Talc; Copper; Lead; Cadmium; Arsenic
New Jersey: Copper oxide; Talc; Dicopper oxide; Copper; Lead; Cadmium; Arsenic
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Lead	Yes.	Yes.	15 µg/day (ingestion)	Yes.
Cadmium	Yes.	Yes.	0.05 µg/day (inhalation)	Yes.
Arsenic	Yes.	No.	0.06 µg/day (inhalation)	No.

Canada
WHMIS (Canada)

- : Class D-1B: Material causing immediate and serious toxic effects (Toxic).
- Class D-2A: Material causing other toxic effects (Very toxic).
- Class D-2B: Material causing other toxic effects (Toxic).



DSL : All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR and the United States OSHA. This MSDS contains all the information required by the CPR and OSHA, the American National Standard Institute (ANSI) Z400.1.

International lists

- : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.)

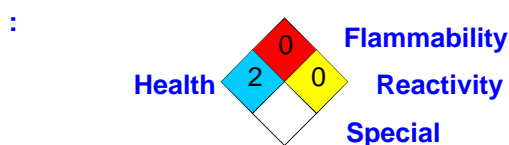
- : CANCER HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
HARMFUL IF INHALED.
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CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
KIDNEYS, LIVER, CARDIOVASCULAR SYSTEM, RESPIRATORY TRACT, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF SWALLOWED.

Hazardous Material Information System (U.S.A.)

HMIS RATING	
Health	* 2
Fire hazard	0
Physical Hazard	0
Personal protection	J

HAZARD RATINGS

- 4- Extreme
 - 3- Serious
 - 2- Moderate
 - 1- Slight
 - 0- Minimal
- See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.)

References

- : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

Date of issue

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Version

: 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.