

Material Safety Data Sheet



Poco Graphite Synthetic Graphite - Copper Impregnated Grade

Section 1. Chemical product and company identification

Common name	: Poco Graphite Synthetic Graphite - Copper Impregnated Grade
Material uses	: Not available.
Supplier/Manufacturer	: POCO Graphite Inc., 300 Old Greenwood Road, Decatur, TX 76234
In case of emergency	: (800) 433-5547, ext. 4202 during normal business hours (800) 433-5547, ext. 4219 after normal business hours

Section 2. Hazards identification

Physical state	: Solid.
Emergency overview	: WARNING ! CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LIVER, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA. CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: LUNGS. Follow good industrial hygiene practice.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Eyes	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Potential chronic health effects	: Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. Mutagenic effects: Not available. Teratogenic effects: Not available.
Medical conditions aggravated by over-exposure	: Repeated or prolonged exposure to the substance can produce target organs damage.
See toxicological information (section 11)	

Section 3. Composition, Information on Ingredients

	CAS number	% by weight
United States		
Graphite, synthetic	7440-44-0	40 - 60
Copper	7440-50-8	40 - 60

This material is classified as hazardous under OSHA regulations.

See Chapters 8, 11 and 14 for details.

Section 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 if symptoms occur.
Skin contact	: Wash with soap and water. Get medical attention if symptoms occur.
Inhalation	: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
Ingestion	: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Notes to physician	: No specific antidote. Medical staff must contact Poison Control Center.



Section 5. Fire fighting measures

- Flammability of the product** : Non-flammable.
- Fire hazards in the presence of various substances** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Slightly flammable in the presence of the following materials or conditions: heat.
Use an extinguishing agent suitable for the surrounding fire. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- 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.
- Special remarks on fire hazards** : Airborne dust. Weak explosion hazard.

Section 6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. See section 13 for waste disposal information.
- 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.

Section 7. Handling and storage

- Handling** : Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing dusts. Avoid contact of spilled materials and runoff with soil and surface waterways. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure controls, personal protection

- Engineering controls** : Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- Personal protection**
- Eyes** : Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to dust.
Recommended: Safety glasses.
- Respiratory** : Use an approved, properly-fitted, powered air-purifying respirator or a respirator of equivalent or greater protection.
- Hands** : Use chemical-resistant, impervious gloves.
- Skin/Body** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Body: Recommended: Lab coat.





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

Product name

Exposure limits

United States

Graphite, synthetic

ACGIH (United States).

TWA: 10 mg/m³ 8 hour/hours. Form: Nuisance particulates.

ACGIH TLV (United States, 1/2004).

TWA: 1 mg/m³ 8 hour/hours. Form: All forms.

TWA: 0.2 mg/m³ 8 hour/hours. Form: Fume

NIOSH REL (United States, 12/2001).

TWA: 1 mg/m³ 10 hour/hours. Form: Dusts and mists

OSHA PEL (United States, 8/1997).

TWA: 150 µg/m³ 8 hour/hours. Form: All forms.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

Physical state	: Solid.
Color	: Gray to black.
Odor	: Odorless.
Molecular weight	: 12.01
Molecular formula	:
Melting/freezing point	: Graphite: Sublimation temperature: 3648.9°C (6600°F). Copper: Melting Point: 1083°C (1980°F).
Specific gravity	: Weighted average: 2.36 (Water = 1)
Vapor pressure	: The highest known value is 0.1 kPa (1 mm Hg) (at 20°C) (Copper).
Dispersibility properties	: Not dispersible in cold water, hot water.
Solubility	: Insoluble in cold water, hot water.

Section 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.

Section 11. Toxicological information

Acute Effects

Eyes	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Potential chronic health effects	: Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. Mutagenic effects: Not available. Teratogenic effects: Not available.
Target organs	: Contains material which causes damage to the following organs: skin, eye, lens or cornea. Contains material which may cause damage to the following organs: kidneys, lungs, liver, upper respiratory tract.



Section 12. Ecological information

Ecotoxicity data

Ingredient name

Ingredient name	Species	Period	Result
Copper	Daphnia magna (EC50)	48 hour/hours	0.0318 mg/l
	Daphnia magna (EC50)	48 hour/hours	0.036 mg/l
	Daphnia magna (EC50)	48 hour/hours	0.055 mg/l
	Pimephales promelas (LC50)	96 hour/hours	0.0094 mg/l
	Pimephales promelas (LC50)	96 hour/hours	0.0103 mg/l
	Pimephales promelas (LC50)	96 hour/hours	0.0278 mg/l

Products of degradation : These products are carbon oxides. Some metallic oxides.

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and 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 local authority requirements.

Consult your local or regional authorities.

Section 14. Transport information

Classification

DOT/IMDG/IATA: Not regulated.

Label

Not applicable.

Additional information

Not applicable.

Section 15. Regulatory information

United States

HCS Classification : Target organ effects

U.S. Federal regulations : TSCA : All components listed.
 SARA 302/304/311/312 extremely hazardous substances: Not listed.
 SARA 302/304 emergency planning and notification: Not listed.
 SARA 302/304/311/312 hazardous chemicals: Not listed.
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Not listed.
 Clean Water Act (CWA) 307: Not listed.
 Clean Water Act (CWA) 311: Not listed.
 Clean Air Act (CAA) 112 accidental release prevention: Not listed.
 Clean Air Act (CAA) 112 regulated flammable substances: Not listed.
 Clean Air Act (CAA) 112 regulated toxic substances: Not listed.

SARA 313

Form R - Reporting requirements	Product name	CAS number	Concentration
Supplier notification	Copper	7440-50-8	40 - 60
	Copper	7440-50-8	40 - 60



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: (environmental hazard, generic environmental hazard)
 - Massachusetts RTK: Copper
 - New Jersey: Copper
 - California prop. 65: No products were found.

International regulations

- International lists** :
- All components listed are listed on major international inventories or exempted from being listed in Australia (AICS), Europe (EINECS/ELINCS), Korea (TCCL), Japan (METI/MOL), Philippines (RA6969).

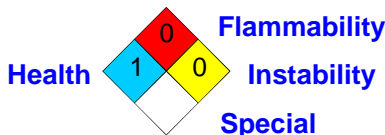
Section 16. Other information

- Label requirements** :
- CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LIVER, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.
 - CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: LUNGS.

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

Health	*	1
Fire hazard		0
Reactivity		0
Personal protection		C

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.

- Date of issue** : 07/30/2005
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.