

SAFETY DATA SHEET



Poco Graphite Synthetic Graphite Semiconductor Grade ZEE, SFG,
DFP, TRA, HPD, CZR, SCF, PLS, FM

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name	: Poco Graphite Synthetic Graphite Semiconductor Grade ZEE, SFG, DFP, TRA, HPD, CZR, SCF, PLS, FM
EC number	: 231-153-3
ADG	: -
CAS number	: 7440-44-0
Product code	: Not available.
Product description	: Not available.
Product type	: Solid block.
Other means of identification	: Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Manufacturing tooling, fixtures, other industrial manufacturing components.

1.3 Details of the supplier of the safety data sheet

Supplier	: POCO Graphite, Inc. An Entegris Company 300 Old Greenwood Road Decatur, Texas 76234 800-433-5547, EXT-4202 (8am - 4pm CT, Mon - Fri)
e-mail address of person responsible for this SDS	: product_stewardship@entegris.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number	: CHEMTREC, International: (703) 527-3887 +1-800-243-100
Hours of operation	: (24/7)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	: Mono-constituent substance
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GHS Classification

Not classified.

Classification

Not regulated.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements





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SECTION 2: Hazards identification

- Signal word** : No signal word.
- Hazard statements** : No known significant effects or critical hazards.
- Precautionary statements**
- General** : Not applicable.
- Prevention** : Not applicable.
- Response** : Not applicable.
- Storage** : Not applicable.
- Disposal** : Not applicable.
- Other hazards which do not result in classification** : May form combustible dust concentrations in air during processing activities (including; but not limited to: cutting, sanding, drilling, machining, dust control equipment, other dust generating activities). Users of this material should perform combustibility testing, prior to use, specific to their use conditions if dust is to be generated.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification	
			AU Classification	GHS Classification
Graphite Synthetic	EC: 231-153-3 CAS: 7440-44-0	>99	Not classified.	Not classified.

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

See Section 16 for the full text of the R-phrases declared above.

See Section 16 for the full text of the H statements declared above.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids.
- Inhalation** : Move exposed person to fresh air.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- Protection of first-aiders** : No special protection is required.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.





SECTION 4: First aid measures

Over-exposure signs/symptoms

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Fine dust clouds may form explosive mixtures with air.
- Hazardous thermal decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : No special protective clothing is required.
- 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.
- Additional information** : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Minimize exposure to dust. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Non-sparking tools should be used when working with dust. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. See section 13 for waste disposal information.





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SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

- Spill** : If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Provide adequate ventilation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Non-sparking tools should be used when working with dust. Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Dust levels must be kept within prescribed limits. Spilled product should be cleaned up and a high standard of housekeeping maintained. Transfer product using proper grounding and bonding procedures to avoid static accumulation. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Maintain graphite blocks in stable position. Any machined generated dust should be maintained in closed container.

7.3 Specific end use(s)

- Recommendations** : Maintain blocks as shipped, no specific handling or storage identified. Dust or powder from machining process should be kept in closed container.

- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Graphite, synthetic	ACGIH (United States). TWA: 10 mg/m ³ 8 hours. Form: Nuisance particulates.





SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Exposure controls

Appropriate engineering controls : It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling dusts generated from this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear should be used when there is a likelihood of exposure.
Recommended: Safety glasses with side shields.

Skin protection

Hand protection : Use gloves appropriate for work or task being performed. Recommended: Chemical-resistant gloves.
No special protective clothing is required.

Skin : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Solid block.

Colour : Gray to black.

Odour : Odourless.

Odour threshold : Not available.

pH : Not available.

Melting point/freezing point : Sublimation temperature: 3650°C (6602°F)

Initial boiling point and boiling range : Not available.

Flash point : Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits : Not available.





SECTION 9: Physical and chemical properties

Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density	: 1.4 to 2
Solubility(ies)	: Insoluble in water.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Minimize dust generation and accumulation.
10.5 Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitisation

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)





SECTION 11: Toxicological information

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

There is no data available.

12.2 Persistence and degradability

There is no data available.





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SECTION 12: Ecological information

12.3 Bioaccumulative potential

There is no data available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : There is no data available.

Mobility : There is no data available.

12.5 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

SECTION 14: Transport information

International transport regulations

Regulation	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADG	Not regulated.	-	-	-		-
IMDG	Not regulated.	-	-	-		-
IATA	Not regulated.	-	-	-		-

PG* : Packing group

Exemption to the above classification may apply.

15. Regulatory information

15.1 Regulatory information

Standard Uniform Schedule of Medicine and Poisons

Not regulated.

Control of Scheduled Carcinogenic Substances

No listed substance

Australia inventory (AICS) : All components are listed or exempted.





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SECTION 16: Other information

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

- Full text of abbreviated H statements** : Not applicable.
- Full text of classifications [CLP/GHS]** : Not applicable.
- Full text of abbreviated R phrases** : Not applicable.
- Full text of classifications [DSD/DPD]** : Not applicable.
- Person who prepared the MSDS** : KMK Regulatory Services Inc.
- History**
- Date of issue** : 15/10/2014
- Date of previous issue** : 15/01/2013
- Version** : 2

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.

