

Safety Data Sheet



Trade Name: GP-200A USci Dry Graphite Conductive Additive

SECTION 1. IDENTIFICATION

Product identifier used on the label: GP-200A USci Dry Graphite Conductive Additive
Product Name: Natural Graphite

Other means of identification:

Recommended use of the chemical and restrictions on use:

Recommended use: Polyurethane additive

Recommended restrictions: Uses other than as recommended above

Company Name: Urethane Sciences, LLC
Company Address: 121 Cross Keys Road, Building E
Berlin, NJ 08009

Company Telephone: Phone: (856) 282-4506
Company Contact Email: info@urethanesciences.com

Emergency Phone: ChemTrec (24 Hours): 1-800-424-9300
(Outside of USA 202-366-4488)

SECTION 2: HAZARD(S) IDENTIFICATION

Physical hazards

No physical hazards identified under paragraph (d) of §1910.1200

Health hazards

None

Environmental hazards

Not adopted under OSHA GHS §1910.1200.

GHS Signal word: None

GHS Hazard statement(s): Not applicable

GHS Hazard symbol(s): None

Precautionary statement(s):

Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention:

Not Applicable

Response:

Not Applicable

Disposal:

Dispose of contents/containers to an approved disposal site in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise Classified (HNOC): None known

SECTION 3: Composition/Information on ingredients

Mixture: Additive mixture for the production of polyurethane foam

CHEMICAL NAME	CAS #	Concentration (weight %)
Natural Mineral Graphite	7782-42-5	99 – 100%

SECTION 4: FIRST AID MEASURES

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation: Remove person to fresh air. No known significant effects. Seek medical attention for any signs of wheezing and/or breathing difficulties. For additional advice call the medical emergency number on this SDS or your poison center or medical provider.

Skin contact: No known significant effects. Rinse the affected areas with water. Remove contaminated clothing, jewelry, and shoes. Wash/clean items before reuse. Seek medical attention for persistent skin pain or irritation. For additional advice call the medical emergency number on this SDS or your poison center or doctor.

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Ingestion: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Aside from the information presented above under First Aid measures, any additional known symptoms or effects are described in Section 11

Indication of immediate medical attention and special treatment needed: If any symptoms are observed, contact a physician and give them this SDS sheet. If concerned: Get medical advice/attention. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: Dry chemical extinguisher, water, sand, limestone powder

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

At temperatures above 1500 C, graphite reacts with substances containing oxygen, including water and carbon dioxide. In case of intensely hot fire events, use sand to cover and isolate graphite.

Special protective equipment and precautions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear approved dust mask, safety goggles, and conventional work gloves. Use conventional cleanup techniques and avoid creating dust. Vacuum is preferred over sweeping. Be cautious of slip hazard on wet or dry pedestrian surfaces. Wear a dust mask/respirator to reduce the change of inhaled dust. Graphite is electrically conductive and any cleanup methods should avoid contacting graphite with electrical circuitry. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental Precautions: Natural graphite is inert and insoluble and will not pose any soluble ion hazards to the environment. However, good housekeeping practices should be followed and spilled material should be cleaned up, and disposed of in an appropriate manner. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air). See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Stop leak. Move containers from spill area. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recover the material and use it for the intended purpose, or Dispose of via a licensed waste disposal contractor.

Graphite is electrically conductive and any cleanup methods should avoid contacting graphite with electrical circuitry. See Section 13, Disposal Considerations, for additional information.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Use conventional methods, but avoid dusting conditions. Keep powder from contacting eyes. Natural graphite is a good conductor of electricity. Avoid contact between natural graphite and electrical circuitry. Slip Hazard: Graphite is a highly lubricious material and may present a slip hazard if spilled on wet or dry pedestrian surfaces.

Conditions for safe storage, including any incompatibles: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for more specific information. Graphite is incompatible with all oxidizing agents. Dust Explosibility Hazards: Very finely divided graphite powder poses a very slight risk of dust explosion hazard: Dust class ST1, MIE greater than 10 J (very low hazard of spark ignition)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Graphite – CAS #7782-42-5 – ACGIH TWA - 2.0 mg/m³ respirable dust

Graphite – CAS #7782-42-5 – ACGIH TWA - 10.0 mg/m³ inhalable dust

Exposure controls

Engineering controls: Use adequate dust collection to maintain dust levels below the control or recommended values.

Environmental controls: Natural graphite is inert and insoluble. To the best of our knowledge, Natural graphite should not present any environmental hazards. No special environmental exposure controls, other than standard practices for dust and spill control, are required.

Individual protection measures

Eye/face protection: Where there is potential for eye contact, wear face shield or chemical goggles and have eye flushing equipment immediately available.

Skin protection

Hand protection: Wear appropriate protective clothing to prevent repeated or prolonged skin contact. Follow good industrial hygiene practices.

Other protection: Selection of specific items will depend on the operation. 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. 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. Graphite spilled on pedestrian surfaces may pose a significant slip hazard.

Respiratory protection: Approved dust mask, type N95 recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state:	Solid, granular or powder
Color:	Gray to Black
Odor:	Odorless
Odor threshold:	Not available
pH:	Not available
Melting point/freezing point:	Sublimates at 3652 C
Initial boiling point and boiling range:	Not available
Flash point:	NA Solid Substance with very high melting point.
Evaporation rate:	Not available
Flammability (solid, gas):	Non-flammable substance.
Upper/lower flammability or explosive limits	
Flammability limit – lower (%):	Not available
Flammability limit – upper (%):	Not available
Explosive limit – lower (%):	Not available
Explosive limit – upper (%):	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	2.26
Solubility (ies):	Insoluble in Water
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	> 500 C
Decomposition temperature:	Oxidizes above 450 C
Dust Explosion Class	ST1=KST>0-200 bar m/s, MIE above 10 J.
Viscosity (dynamic):	Not available
% Volatile:	< 1%

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Not considered to be reactive.
Chemical stability:	Stable under normal ambient conditions and anticipated conditions of use.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	Avoid contact with oxidizing agents. Graphite will begin to oxidize at temperatures above 450 C.
Incompatible materials:	Oxidizing Agents
Hazardous decomposition products:	Carbon Dioxide, Carbon Monoxide
Revised 10/1/2020, D. Powers	

Flammable Limits: LEL and UEL values not available: Minimum Ignition Energy (MIE) greater than 10 joules. When exposed to extremely high energy ignition sources very finely divided graphite powder can form explosive mixtures with air. Avoid contact between graphite dust clouds and high energy ignition sources. Classified as combustible but not flammable.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

LD50, rat > 2000 mg/kg

Acute dermal toxicity

No significant effects or critical hazards

Acute inhalation toxicity

LC50, rat > 2000 mg/m³

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

Non-irritating to the eyes.

Sensitization

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

No relevant data found.

Carcinogenicity

Not carcinogenic

Teratogenicity

No relevant data found.

Reproductive toxicity

No relevant data found.

Mutagenicity

No relevant data found.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Graphite is not water soluble and does not present a soluble-ion hazard. Fine graphite particles suspended in natural water bodies may be harmful to organisms sensitive to suspended solids.

Toxicity**Acute toxicity:**

LC50, fish > 100 mg/l, 96 h

EC50, daphnia > 100 mg/l, 48 h

EC50, algae > 100 mg/l, 72 h

Persistence and degradability

Biodegradability: Graphite is a reduced form of carbon and will not degrade further under normal conditions. This form of carbon is stable, unreactive in water under ambient conditions, and is insoluble.

Bioaccumulative potential

Bioaccumulation: Not available

Mobility in soil

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods: The generation of waste should be avoided or minimized wherever possible.

Graphite is a reduced form of carbon. Graphite is non-hazardous but disposal of graphite waste should be handled in a responsible manner. Graphite is a form of elemental carbon so it is not biodegradable. 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. Dispose of surplus and nonrecyclable 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. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor. Dust formation from packaging residues should be avoided. Store empty packaging in a suitable receptacle

SECTION 14: Transport Information**US Department of Transportation Classification (49CFR)**

Not regulated for transport

Maritime transport IMDG

Not regulated for transport. Consult IMO regulations before transporting in bulk.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

No further relevant information available.

Air transport ICAO-TI and IATA-DGR

Not regulated for transport

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

No data available

SECTION 15: REGULATORY INFORMATION

USA:

United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is not hazardous under OSHA.

Toxic Substances Control Act (TSCA) – All components are on the U.S. EPA TSCA Inventory List.

CERCLA Hazardous Substance List, 40 CFR 302.4:

No components listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories:

Immediate Hazard - No

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard – No

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A): None listed

Section 311 hazardous chemical: None listed

SARA Section 313 (Specific toxic chemical listings): None listed

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986): No components are listed on Prop 65.

SECTION 16: OTHER INFORMATION

Revision Date: 10/1/2020

DISCLAIMER: 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 legal liability for 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.