



## Safety Data Sheet

### Section 1, Identification

Product identifier

Product Name: Flexible Graphite

Chemical Name: Graphite/Flexible Graphite

Trade Name: Minseal Flexible Graphite, 2010A, 2010B, 2010K, 2020B, 2020Z, 2020ZH, 2030L

Manufacturer/Supplier's Name: Mineral Seal Corporation

Address (Number, Street, City, State and ZIP Code): 1832 S. Research Loop, Tucson, AZ 85710

Emergency Telephone Number: (520) 885- 8228

Telephone Number for Information: (520) 885 - 8228

Recommended use: Gasket and fluid sealing material,

Restrictions: Not established

### Section 2, Hazard(s) identification

Hazard classification(Physical, Health, OSHA): Not classified

Label elements: No

Hazard Symbol: None

Signal Word: None

Hazard statement: None

Precautionary statement (Prevention, Response, Storage, Disposal): None

Hazard statements: None

Hazards not otherwise classified: None

### Section 3, Composition/information on ingredients

Including chemical ingredients and trade secret claims

Ingredient	CAS Number	%(By Weight)
Flexible Graphite (Mineral Graphite, Carbon)	7782-42-5	99%
Crystalline Silica (Impurity ash, silica, silica dioxide, quartz)	14808-60-7	< 0.2%

### Section 4, First-aid measures

First-aid measures:

#### RESPIRATORY TRACT IRRITATION:

Move the person to a dust free location. Get medical attention if the irritation continues.

#### EYE IRRITATION:

Flush with large amounts of water. Get medical attention if irritation persists.

#### SKIN IRRITATION:

Wash area of contact thoroughly with soap and water. Get medical attention if irritation persists.

#### GASTROINTESTINAL IRRITATION:

Unlikely to happen. However, if gastrointestinal tract irritation develops, move the person to a dust free environment.

Most Important symptoms and effects, both acute and delayed: None

Indication of any immediate medical attention and special treatment required: None

Other possible effects:

The product is not hazardous material in normal use. High concentration of graphite dust may be irritating to eyes, skin and respiratory tract. Inhalation of high concentration of graphite dust over prolonged periods of time may cause pneumoconiosis.

## Section 5, Fire-fighting measures

Suitable extinguishing media: Flexible graphite is not flammable. Use extinguishing media suitable for type of surrounding fire. The product should be cooled with water

Specific hazards arising from the substance: Thermal decomposition may produce smoke and oxides of carbon.

Special protective equipment and actions for firefighters: None

## Section 6, Accidental release measures

Personal precautions, protective equipment and emergency procedures: None

Environmental precautions: Do not release the material to sewers or drains.

Methods and material for containment and cleaning up: Spill should be returned to the original container, or if not reusable, should be placed in container for disposal.

## Section 7, Handling and storage

Precautions for safe handling and storage: Normal handling and storing of graphite does not require special precautions. Minimize accumulation of graphite debris and dusts in work area. Graphite is electrical conductive. Graphite debris and dusts may cause shorting of electrical circuits or equipment malfunctioning.

Conditions for safe storage including any incompatibilities: Store in original container in a dry area. Keep container closed when not in use. No known incompatible substances under normal conditions.

## Section 8, Exposure controls/personal protection

OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

### Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Type Limit	Additional Comments
Flexible Graphite (carbon, mineral graphite)	7782-42-5	OSHA Z-1  OSHA Z-3 ACGIH NIOSH	PEL 5mg/m <sup>3</sup> (Respirable) PEL 15mg/m <sup>3</sup> (Total dust) TWA 15 million particles TLV TWA 2mg/m <sup>3</sup> (Respirable) TWA 2.5 mg/m <sup>3</sup> (Respirable)	
Crystalline Silica (impurity ash, silica, quartz silica dioxide)	14808-60-7	OSHA Z-3  ACGIH	TWA 0.3mg/m <sup>3</sup> (Total dust) TWA 0.1mg/m <sup>3</sup> (Respirable) TWA 2.4 million particles TLV TWA 0.025mg/m <sup>3</sup> (Respirable)	

ACGIH : American Conference of Governmental Industrial Hygienists  
AIHA : American Industrial Hygiene Association  
CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average  
STEL: Short Term Exposure Limit  
CEIL: Ceiling

Appropriate engineering controls: Local exhaust ventilation, dust collection, and other equipment designed to minimize dust.

Personal protective equipment (PPE) and protection measures:

Eye/face protection: If dusts or debris are generated during processing, wear safety glasses with side shields or other forms of eye protection in compliance with appropriate OSHA standards.

Skin hand protection: Wear gloves to prevent cuts, abrasions and irritation during handling and processing.

Respiratory protection: When exposure is above limit, half-facepiece, or full-facepiece air purifying respirator equipped with a NIOSH certified P95 particulate filter cartridge or PAPR with tight-fitting full facepiece is recommended depending on the exposure level.

## Section 9, Physical and chemical properties

ODOR AND APPEARANCE:	Black, odorless, solid shape
CHEMICAL FAMILY:	Graphite: Carbon
BOILING POINT:	N/A
WATER SOLUBILITY (%):	Not Soluble in Water
MELTING POINT:	5400° F
SPECIFIC GRAVITY:	0.8- 1.7
VAPOR PRESSURE:	N/A
pH:	N/A
VAPOR DENSITY (Air = 1):	N/A
% VOLATILE:	N/A
MOLECULAR FORMULA:	C

## Section 10, Stability and reactivity

CHEMICAL STABILITY:	Stable under conditions of normal use
INCOMPATIBILITY:	Strong oxidizing agent.
CONDITIONS TO AVOID:	None.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon dioxide CO <sub>2</sub>
HAZARDOUS POLYMERIZATION:	N/A

## Section 11, Toxicological information

Signs and Symptoms of Exposure:

Inhalation: No adverse effects under normal exposure conditions

Respiratory Tract Irritation: No adverse effects under normal exposure conditions

Skin Contact: No adverse effects under normal exposure conditions

Eye Contact: No adverse effects under normal exposure conditions

Ingestion: No adverse effects under normal exposure conditions

Toxicological data:

Acute Toxicity

Name	Route	Species	Value
Graphite	Oral	Rat	LD50 > 10000 mg/kg

Skin corrosion/irritation: No adverse effects are expected.

Serious eye damage/eye irritation: No adverse effects are expected.

Respiratory sensitization: No Data.

Skin sensitization: Not a skin sensitizer

Central Nervous System (CNS) Depression: Very unlikely, no data available

Peripheral Neuropathy: Very unlikely, no data available

Reproductive/Developmental Toxicity: No data

Germ cell mutagenicity: No data

Carcinogenicity: Graphite is not classified

Impurity ash crystalline silica is classified as known or suspected human carcinogen by IATC, NTP and ACGIH

Single exposure may cause target organ effects: No data

Prolonged or repeated exposure may cause target organ effects: No data

Aspiration hazard: Not classified.

Chronic effects: Unlikely

## Section 12, Ecological information

Ecotoxicity: Not an environmental hazard

Persistence and degradability: Not degradable

Bioaccumulative potential: Not applicable

Mobility in soil: No data

Mobility in general: Not applicable

Other adverse effects: No known other adverse effects to the environment

### **Section 13, Disposal considerations**

Disposal instructions: Recover and recycle if practical, or approved landfill. This substance is not specifically listed as hazardous waste in federal regulations. For particular situation check federal, local, regional, state or provincial regulations to identify all applicable disposal requirements.

Hazardous waste code: Not established

Waste from residues / unused products: Follow the same disposal instructions for the product.

Contaminated packaging Dispose: Follow the disposal requirements for the packaging material.

### **Section 14, Transport information**

Graphite is not regulated as dangerous goods by the following agencies: DOT, IATA, IMDG.

UN number: Not assigned

UN proper shipping name: Not specified

Transport hazard class(es): Not classified

Packing group, if applicable: Not applicable

Environmental hazards (e.g., Marine pollutant (Yes/No)): No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not available

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: None

### **Section 15, Regulatory information**

#### US Federal Regulations

Under some use conditions, this material may be considered to be hazardous in accordance with OSHA 29 CFR 1910.1200.

#### US State Regulations

WARNING: This product contains chemicals known to the State of California to cause cancer:

Impurity Ash Content: Crystalline silica CAS 14808-60-7 (less than 0.2%) California Proposition 65

Carcinogens & Reproductive Toxicity (CRT): Listed substance

#### International Regulations

This product is listed by multiple countries as inventory chemical substance in complies with the inventory requirements administered by the governing country.

## Section 16, Other information

NFPA Hazard Classification

Health: 0 Flammability: 0 Instability: 0 Special Hazards: None

Date of preparation/last revision: October 1, 2015

Version: 1.00

*This Safety Data Sheet was prepared in accordance with OSHA 1910.1200 Hazard Communication Standard (HCS 2012).*

DISCLAIMER: The information provided in this Safety Data Sheet (SDS) is believed to be correct as of the date of preparation and to the best of our knowledge. Mineral Seal Corporation (Minseal) makes no warranties. Users should use this information to make an independent determination of the safety of their workers and the environment. Users should provide the information in this form to their employees or contractors that are involved in handling of the substances. Users are responsible for determining whether the product is fit for a particular purpose and application.