

1. Product and Company Identification

Material name VALVE PACK G
Version # 00
Issue date 02-27-2013
Revision date 02-27-2013
Supersedes date -
Chemical name Coated fiber
Chemical description Fibrous Resin Mixture
CAS # Mixture
Product use Industrial Leak Sealant
Product Code 801-0024
Manufacturer information
Manufacturer/Supplier Team Industrial Services, Inc.
 200 Hermann Drive, Alvin, Texas 77511
Emergency Contact CHEMTREC - 24 HOURS
 USA: CHEMTREC: 800-424-9300
 International: 703-527-3887 (Collect)

2. Hazards Identification

Physical state Solid.
Appearance Black pliable semi-solid. Odorless.
Emergency overview When cured: Mechanical processing may generate dust.
OSHA regulatory status This product is not hazardous according to OSHA 29CFR 1910.1200.
Potential health effects
Routes of exposure Eye contact. Skin contact.
Eyes Direct contact with eyes may cause temporary irritation.
Skin Prolonged or repeated skin contact may cause irritation.
Inhalation Dust may cause irritation.
Ingestion No harmful effects expected in amounts likely to be ingested by accident.
Chronic effects Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Signs and symptoms Direct contact with eyes may cause temporary irritation.
Potential environmental effects The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Graphite	7782-42-5	25-50
Molybdenum disulphide	1317-33-5	25-50
Synthetic hydrocarbons	N/A	5-10

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Flush thoroughly with water. If irritation occurs, get medical assistance.
Skin contact Wash area with soap and water. Get medical attention if irritation develops or persists.
Inhalation Remove victim to fresh air. Get medical attention if symptoms persist.

Ingestion	Rinse mouth and drink plenty of water. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort occurs.
Notes to physician	Treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	No unusual fire or explosion hazards noted.
Extinguishing media	
Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	No restrictions known.
Protection of firefighters	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Protective equipment and precautions for firefighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials. Cool material exposed to heat with water spray and remove it if no risk is involved.
Hazardous combustion products	None known.

6. Accidental Release Measures

Personal precautions	Avoid prolonged and repeated contact. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Methods for containment	Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Collect and dispose of spillage as indicated in Section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Provide adequate ventilation. Avoid prolonged and repeated contact. Observe good industrial hygiene practices.
Storage	Store in closed original container in a dry place.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	TWA	2 mg/m ³	Respirable fraction.
Molybdenum disulphide (CAS 1317-33-5)	TWA	3 mg/m ³	Respirable fraction.
		10 mg/m ³	Inhalable fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Molybdenum disulphide (CAS 1317-33-5)	PEL	15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Graphite (CAS 7782-42-5)	TWA	15 millions of particle

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	TWA	2 mg/m ³	Respirable.
Molybdenum disulphide (CAS 1317-33-5)	TWA	3 mg/m ³	Respirable.
		10 mg/m ³	Total

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	TWA	2 mg/m ³	Respirable.
Molybdenum disulphide (CAS 1317-33-5)	TWA	3 mg/m ³	Respirable.
		10 mg/m ³	Inhalable

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	TWA	2 mg/m ³	Respirable fraction.
Molybdenum disulphide (CAS 1317-33-5)	TWA	10 mg/m ³	Inhalable fraction.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	TWA	2 mg/m ³	Respirable dust.
Molybdenum disulphide (CAS 1317-33-5)	TWA	10 mg/m ³	

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Graphite (CAS 7782-42-5)	TWA	10 mg/m ³
Molybdenum disulphide (CAS 1317-33-5)	STEL	20 mg/m ³
	TWA	10 mg/m ³

Engineering controls Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Personal protective equipment

Eye / face protection Risk of contact: Wear approved safety glasses or goggles.

Skin protection Where skin contact is likely, wear chemical impervious gloves. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance Black pliable semi-solid. Odorless.

Physical state Solid.

Form Pliable semi-solid.

Color Black. **Odor**

Odorless.

Odor threshold Not available.

pH Not available.

Vapor pressure Not available.

Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Slightly soluble in water.
Specific gravity	Not available.
Flash point	285 °F (140.6 °C)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Partition coefficient (n-octanol/water)	No data available.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Exposure to flame or temperatures above 750° F (398.9 C°).
Incompatible materials	None known.
Hazardous decomposition products	None known.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Molybdenum disulphide (CAS 1317-33-5)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 2820 mg/m3, 4 hours
Sensitization	Not a skin sensitizer.	
Acute effects	May cause discomfort if swallowed.	
Local effects	May cause eye irritation on direct contact. Prolonged or repeated skin contact may cause irritation.	
Chronic effects	No additional adverse health effects noted.	
Carcinogenicity	Not classified.	
ACGIH Carcinogens		
Molybdenum disulphide (CAS 1317-33-5)		A3 Confirmed animal carcinogen with unknown relevance to humans.
Symptoms and target organs	Direct contact with eyes may cause temporary irritation.	

12. Ecological Information

Ecotoxicity	The product is not expected to be hazardous to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient	No data available.
Mobility in environmental media	No data available.

13. Disposal Considerations

Waste codes	Not regulated.
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Disposal instructions Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Recover and reclaim or recycle, if practical.

Contaminated packaging Dispose product packaging in accordance with local authority requirements taking into account characteristics of the packaging material.

14. Transport Information

DOT

Not regulated as a hazardous material by DOT.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

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)

No

Section 311/312 (40 CFR 370)

No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Not controlled

Canadian regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS status

Controlled

WHMIS classification

D2A - Other Toxic Effects-VERY TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer.

US - California Hazardous Substances (Director's): Listed substance

Graphite (CAS 7782-42-5) Listed.
Molybdenum disulphide (CAS 1317-33-5) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Graphite (CAS 7782-42-5) Listed.

US. Massachusetts RTK - Substance List

Graphite (CAS 7782-42-5) Listed.
Molybdenum disulphide (CAS 1317-33-5) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Graphite (CAS 7782-42-5) Listed.

16. Other Information

Further information

B - Safety Glasses, Gloves
HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 1
Flammability: 1
Physical hazard: 0
Personal protection: B

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.