SAFETY DATA SHEET

1. Identification

Product identifier **Style 3125-SS GRAPH-LOCK Gasketing**

Other means of identification

Product code 31250, 31255

Recommended use Gasket Material

Recommended restrictions Maximum Service Temperature in Air Should Not Exceed 850°F

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Garlock Sealing Technologies, LLC

Address 1666 Division Street
Palmyra, NY 14522
United States

Telephone M-F 9:00AM-4:00PM 315-597-4811
FAX 315-597-3039

Website www.garlock.com

E-mail GSTSDS@garlock.com

Contact person Michael McNally

Emergency phone number 315-597-4811

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Based on available information; under normal conditions of use this product is not expected to release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and is not expected to pose a physical hazard or health risk to employees. Based on this and its form, the product meets the definition of an “Article”. “Articles” are outside the scope of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Graphite		7782-42-5	48 - < 89.9
Chromium (Component of Stainless Steel)		7440-47-3	3 - < 5
Nickel (Component of Stainless Steel)		7440-02-0	3 - < 5

Chemical name	Common name and synonyms	CAS number	%
Manganese (Component of Stainless Steel)		7439-96-5	< 1
Molybdenum (Component of Stainles Steel)		7439-98-7	< 1
Silicon (Component of Stainless Steel)		7440-21-3	< 0.3
Other components below reportable levels			20 - < 30

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments Product is a laminate of natural graphite foil and stainless steel. Lamination is accomplished by use of an adhesive. The graphite foil contains a phosphate oxidation inhibitor. None of components of adhesive or oxidation inhibitor is present in concentrations that would require it to be declared.

4. First-aid measures

Inhalation No specific intervention is indicated as the product is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult physician if symptoms persist.

Skin contact The product is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion No specific intervention is indicated, as product is not likely to be hazardous by ingestion. Consult a physician if necessary.

Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions No unusual fire or explosion hazards noted.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures None known.

Methods and materials for containment and cleaning up None necessary.

Environmental precautions None known.

7. Handling and storage

Precautions for safe handling Normal handling and use of this product should not generate dust or fumes. The intended use of this product does not include milling, grinding or saw cutting. Observe good industrial hygiene practices. Wear suitable PPE - edges of sheet or gaskets maybe sharp due to metal reinforcment.

Conditions for safe storage, including any incompatibilities Store in closed original container in a dry place.

8. Exposure controls/personal protection

Occupational exposure limits

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

Components	Type	Value	Form
Chromium (Component of Stainless Steel) (CAS 7440-47-3)	PEL	1 mg/m3	
Graphite (CAS 7782-42-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Manganese (Component of Stainless Steel) (CAS 7439-96-5)	Ceiling	5 mg/m3	Fume.
Molybdenum (Component of Stainles Steel) (CAS 7439-98-7)	PEL	15 mg/m3	Total dust.
Nickel (Component of Stainless Steel) (CAS 7440-02-0)	PEL	1 mg/m3	
Silicon (Component of Stainless Steel) (CAS 7440-21-3)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

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

Components	Type	Value
Graphite (CAS 7782-42-5)	TWA	15 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Chromium (Component of Stainless Steel) (CAS 7440-47-3)	TWA	0.5 mg/m3	Inhalable fraction.
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
Manganese (Component of Stainless Steel) (CAS 7439-96-5)	TWA	0.1 mg/m3	Inhalable fraction.
		0.02 mg/m3	Respirable fraction.
Molybdenum (Component of Stainles Steel) (CAS 7439-98-7)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Nickel (Component of Stainless Steel) (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Chromium (Component of Stainless Steel) (CAS 7440-47-3)	TWA	0.5 mg/m3	
Graphite (CAS 7782-42-5)	TWA	2.5 mg/m3	Respirable.
Manganese (Component of Stainless Steel) (CAS 7439-96-5)	STEL	3 mg/m3	Fume.
	TWA	1 mg/m3	Fume.
Nickel (Component of Stainless Steel) (CAS 7440-02-0)	TWA	0.015 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Silicon (Component of Stainless Steel) (CAS 7440-21-3)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

Eye/face protection As generally good practice, safety glasses with side shields are recommended when handling this product to prevent eye contact with particulate matter.

Skin protection

Hand protection Wear protective gloves. Edges maybe sharp. Wear suitable gloves to prevent hand lacerations. When handling hot material, use heat resistant gloves.

Other Not normally needed.

Respiratory protection Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

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 and chemical properties

Appearance

Physical state Solid.

Form Sheets or Gaskets

Color Black.

Odor Slight Acrylic

Odor threshold Not available.

pH Not Applicable

Melting point/freezing point Not available.

Initial boiling point and boiling range Not Applicable

Flash point Not Applicable

Evaporation rate Not Applicable

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not Applicable

Flammability limit - upper (%) Not Applicable

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Not Soluble

Partition coefficient (n-octanol/water) Not Applicable

Auto-ignition temperature Not Applicable

Decomposition temperature Not Applicable

Viscosity	Not Applicable
Other information	
Bulk density	70 lb/ft3

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid open flames. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Composition of by-products from the result of a fire will vary depending on the specific conditions. Possible decomposition products include smoke, carbon monoxide abd carbon dioxide, . There may be others unknown to us.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Not relevant due to the form of the product.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity No adverse effects expected.

Components	Species	Test Results
Graphite (CAS 7782-42-5)		
Acute		
Oral		
LD50	Rat	> 10000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Chromium (Component of Stainless Steel) (CAS 7440-47-3)	3 Not classifiable as to carcinogenicity to humans.
Nickel (Component of Stainless Steel) (CAS 7440-02-0)	2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Nickel (Component of Stainless Steel) (CAS 7440-02-0) Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.

Aspiration hazard Not an aspiration hazard.

12. Ecological information

Ecotoxicity This product has no known eco-toxicological effects.

Components		Species	Test Results
Chromium (Component of Stainless Steel) (CAS 7440-47-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.01 - 0.7 mg/l, 48 hours
Fish	LC50	Carp (Cyprinus carpio)	14.3 mg/l, 96 hours
Manganese (Component of Stainless Steel) (CAS 7439-96-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	40 mg/l, 48 hours
Molybdenum (Component of Stainles Steel) (CAS 7439-98-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	800 mg/l, 96 hours
Nickel (Component of Stainless Steel) (CAS 7440-02-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	2.923 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability Not relevant

Bioaccumulative potential Not relevant due to form of product.

Mobility in soil Not relevant due to form of product.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

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 the time of disposal. Recover and recycle, if practical.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations.

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

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.
This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Chromium (Component of Stainless Steel) (CAS 7440-47-3) Listed.
Nickel (Component of Stainless Steel) (CAS 7440-02-0) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No (Exempt)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Chromium (Component of Stainless Steel)	7440-47-3	3 - < 5
Manganese (Component of Stainless Steel)	7439-96-5	< 1
Nickel (Component of Stainless Steel)	7440-02-0	3 - < 5

Other federal regulations

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

Chromium (Component of Stainless Steel) (CAS 7440-47-3)
Manganese (Component of Stainless Steel) (CAS 7439-96-5)
Nickel (Component of Stainless Steel) (CAS 7440-02-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations WHMIS Classification: Not Controlled

California Proposition 65

WARNING: WARNING: This product can expose you to the following chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Nickel (Component of Stainless Steel) (CAS 7440-02-0) Listed: October 1, 1989

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Chromium (Component of Stainless Steel) (CAS 7440-47-3)
Manganese (Component of Stainless Steel) (CAS 7439-96-5)
Molybdenum (Component of Stainles Steel) (CAS 7439-98-7)
Nickel (Component of Stainless Steel) (CAS 7440-02-0)

International Inventories

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
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

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 08-03-2016

Revision date 07-12-2019

Version # 03

Further information This SDS supersedes the SDS dated: July 10, 2018

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.