

1. Identification

Product identifier Mill-Right® N Elastomer

Other means of identification

Product code Various

Recommended use Sealing Element

Recommended restrictions Maximum Service Temperature should not exceed 250°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 In its manufactured and shipped state, this product is considered to present low hazard.

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 | % |
|---------------------------------|--------------------------|------------|-----------|
| Nitrile Rubber | | 9003-18-3 | 40 - < 50 |
| Carbon Black | | 1333-86-4 | 15 - < 60 |
| Graphite | | 7782-42-5 | - < 20 |
| Stearic Acid | | 57-11-4 | < 1 |
| Tetramethyl Thiuram Monosulfide | | 97-74-5 | < 1 |

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| Zinc Oxide | | 1314-13-2 | - < 1 |
| Other components below reportable levels | | | 3 - < 5 |

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

4. First-aid measures

| | |
|---|---|
| Inhalation | No specific intervention is indicated as the product is not likely to be hazardous by inhalation. If exposed to fumes from overheating or combustion, move to fresh air. Consult physician if symptoms persist. |
| Skin contact | If skin irritation or rash occurs: Get medical advice/attention. |
| 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 | Get medical attention if symptoms occur. |

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 | Use standard firefighting procedures and consider the hazards of other involved materials. |
| 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 | See Section 8 of the SDS for Personal Protective Equipment. |
| Methods and materials for containment and cleaning up | No special methods normally required. If dust is generated see Section 7. |
| 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. |
| Conditions for safe storage, including any incompatibilities | Room temperature - normal conditions. |

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 |
|------------------------------|------|-----------|----------------------|
| Carbon Black (CAS 1333-86-4) | PEL | 3.5 mg/m3 | |
| Graphite (CAS 7782-42-5) | PEL | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |

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

| Components | Type | Value | Form |
|----------------------------|------|----------|----------------------|
| Zinc Oxide (CAS 1314-13-2) | PEL | 5 mg/m3 | Respirable fraction. |
| | | 5 mg/m3 | Fume. |
| | | 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 |
|------------------------------|------|----------|----------------------|
| Carbon Black (CAS 1333-86-4) | TWA | 3 mg/m3 | Inhalable fraction. |
| Graphite (CAS 7782-42-5) | TWA | 2 mg/m3 | Respirable fraction. |
| Stearic Acid (CAS 57-11-4) | TWA | 3 mg/m3 | Respirable fraction. |
| Zinc Oxide (CAS 1314-13-2) | STEL | 10 mg/m3 | Inhalable fraction. |
| | | 10 mg/m3 | Respirable fraction. |
| | | 2 mg/m3 | Respirable fraction. |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value | Form |
|------------------------------|---------|-----------|-------------|
| Carbon Black (CAS 1333-86-4) | TWA | 0.1 mg/m3 | |
| Graphite (CAS 7782-42-5) | TWA | 2.5 mg/m3 | Respirable. |
| Zinc Oxide (CAS 1314-13-2) | Ceiling | 15 mg/m3 | Dust. |
| | STEL | 10 mg/m3 | Fume. |
| | TWA | 5 mg/m3 | Fume. |
| | | 5 mg/m3 | Dust. |

Biological limit values

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

Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

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**

For prolonged or repeated skin contact use suitable protective 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

Wash hands after handling.

9. Physical and chemical properties**Appearance**

| | |
|----------------|-----------------|
| Physical state | Solid. |
| Form | Sealing Element |
| Color | Black. |

| | |
|---|-------------------|
| Odor | Faint hydrocarbon |
| Odor threshold | Not available. |
| pH | Not Applicable |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| 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 - lower (%) temperature | Not Applicable |
| Flammability limit - upper (%) | Not Applicable |
| Flammability limit - upper (%) temperature | Not Applicable |
| Explosive limit - lower (%) | Not Applicable |
| Explosive limit - lower (%) temperature | Not Applicable |
| Explosive limit - upper (%) | Not Applicable |
| Explosive limit - upper (%) temperature | Not Applicable |
| Vapor pressure | Not Applicable |
| Vapor density | Not Applicable |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not Soluble |
| Partition coefficient (n-octanol/water) | Not Applicable |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not Applicable |
| Other information | |
| Explosive limit | Not Applicable |
| Flash point class | Not Applicable |
| Specific gravity | 1.28 |

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 | To provide optimum shelf life elastomeric articles should be stored in a cool dry location. Do not expose to greases, oils or solvents in liquid or vapor form. Prevent exposure to ultra-violet light (UV) from direct sunlight or strong fluorescent lights. Do not store near devices that produce ozone. |
| Incompatible materials | Strong mineral acids. Strong oxidizing agents. Strong bases. |
| 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, oxides of carbon, sulfur, nitrogen and zinc; as well as acrylonitrile monomer and hydrogen cyanide. 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 | May cause sensitization by skin contact. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Harmful and / or toxic vapors may be produced in the event of thermal decomposition.

| Components | Species | Test Results |
|------------------------------|---------|---------------------|
| Carbon Black (CAS 1333-86-4) | | |
| <u>Acute</u> | | |
| Oral | | |
| LD50 | Rat | > 8000 mg/kg |
| Graphite (CAS 7782-42-5) | | |
| <u>Acute</u> | | |
| Oral | | |
| LD50 | Rat | > 10000 mg/kg |
| Stearic Acid (CAS 57-11-4) | | |
| <u>Acute</u> | | |
| Oral | | |
| LD50 | Rat | 4.6 g/kg |
| Zinc Oxide (CAS 1314-13-2) | | |
| <u>Acute</u> | | |
| Inhalation | | |
| LC50 | Mouse | > 5.7 mg/l, 4 Hours |
| Oral | | |
| LD50 | Rat | > 5 g/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 May cause sensitization by skin contact.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Carbon black has been evaluated by IARC as a possible carcinogen to humans (Group 2B). Any carbon black contained in this product is completely encapsulated within the polymer matrix and as such, should not present a health hazard.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon Black (CAS 1333-86-4) 2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Carbon Black (CAS 1333-86-4) Known To Be 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 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.

| Product | Species | Test Results |
|---|----------------|--|
| Mill-Right® N Elastomer | | |
| Aquatic | | |
| Fish | LC50 | 509.0488 mg/l, 96 hours estimated |
| Components | Species | Test Results |
| Tetramethyl Thiuram Monosulfide (CAS 97-74-5) | | |
| Aquatic | | |
| Fish | LC50 | 4.2 - 6.8 mg/l, 96 hours |
| Zinc Oxide (CAS 1314-13-2) | | |
| Aquatic | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) 2246 mg/l, 96 hours |

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

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Stearic Acid 8.23

Mobility in soil No data available.

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 Dispose in accordance with all applicable regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Waste from residues / unused products Dispose in accordance with all applicable regulations.

Contaminated packaging Not applicable.

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)

Zinc Oxide (CAS 1314-13-2) 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. |
|---------------|------------|----------|
| Zinc Oxide | 1314-13-2 | - < 1 |

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

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****California Proposition 65****WARNING:** Note:

The Carbon Black in this product is bound in a rubber matrix and therefore poses low risk of exposure to airborne particles of respirable size. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Carbon Black (CAS 1333-86-4)

Listed: February 21, 2003

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

Carbon Black (CAS 1333-86-4)

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| 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) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*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** 12-26-2019**Version #** 01**Further information** This SDS supersedes the SDS dated: August 21, 2015

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.