SAFETY DATA SHEET

1. Identification

Product identifier **Carbae 105**

Other means of identification

Product code 40405, 44805, 44810, 40335

Recommended use Compression Packing

Recommended restrictions Maximum Service Temperature should not exceed 600°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).

Heating PTFE to temperatures in excess of 500˚ F can evolve toxic fluorine compounds. Additional information concerning PTFE is available in the “Guide to the Safe Handling of Fluoropolymer Resins” published by the Fluoropolymers Division of the Society of the Plastics Industry, Inc.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Carbon Fiber		7440-44-0	45 - < 65

Chemical name	Common name and synonyms	CAS number	%
Polytetrafluoroethylene (PTFE)		9002-84-0	30 - < 40
Petrolatum		8009-03-8	- < 15
Tridecyl Alcohol Ethoxylate		24938-91-8	- < 2

*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 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 Following Fisrt Aid Instructions as outlined. If symtoms persist seek medical attention.

5. Fire-fighting measures

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

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

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 Hydrogen fluoride fumes emitted during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling refuse from fire

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 Avoid contamination of cigarettes or tobacco with dust from this material.

Conditions for safe storage, including any incompatibilities Store in cool and dry place in closed labeled containers. Keep away from excessive heat, open flames and sparks.

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
Petrolatum (CAS 8009-03-8)	PEL	5 mg/m3	Mist.

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

Components	Type	Value	Form
Carbon Fiber (CAS 7440-44-0)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Petrolatum (CAS 8009-03-8)	TWA	5 mg/m3	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Carbon Fiber (CAS 7440-44-0)	TWA	2.5 mg/m3	Respirable.
Petrolatum (CAS 8009-03-8)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

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 For prolonged or repeated skin contact use suitable protective gloves. Neoprene gloves are recommended when handling refuse from a fire or packing that has been heated in excess of 500˚ F.

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 Braid or Die Formed Rings

Color Black.

Odor Mild Petroleum

Odor threshold Not available.

pH Not Applicable

Melting point/freezing point 620.6 °F (327 °C) PTFE

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 - 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)	< 2 %
Partition coefficient (n-octanol/water)	Not Applicable
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not Applicable

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	Keep away from heat, sparks and open flame.
Incompatible materials	Incompatible or can react with finely divided metal powders (e.g. aluminum and magnesium), molten alkali metals, and potent oxidizers like fluorine and related compounds like chlorine trifluoride. Contact with incompatibles can cause fire or explosion. Strong oxidising agents.
Hazardous decomposition products	Composition of by-products from the result of a fire or thermal decomposition will vary depending on the specific conditions. Hazardous gases/vapors possibly evolved include smoke, hydrogen fluoride, carbonyl fluoride, perfluorocarbon olefins and carbon monoxide. 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	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 No effects due to exposure to the product are anticipated. If exposed to thermal decomposition products of the PTFE, temporary symptoms of polymer fume fever, a temporary flu-like illness with chills, fever, and sometimes cough, of approximately 24 hours duration may arise. There are some reports in the literature of persistent pulmonary effects in individuals, especially smokers, who have repeated episodes of polymer fume fever. Because of complicating factors, such as mixed exposures and smoking history, these findings are uncertain. Small amounts of carbonyl fluoride and hydrogen fluoride may also be evolved when PTFE is overheated or burned.

Components	Species	Test Results
Carbon Fiber (CAS 7440-44-0)		
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

Polytetrafluoroethylene (PTFE) (CAS 9002-84-0) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Petrolatum (CAS 8009-03-8) 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 This product has no known eco-toxicological effects.

Components		Species	Test Results
Tridecyl Alcohol Ethoxylate (CAS 24938-91-8)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	5.9 - 9.7 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.

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 Review federal, state/provincial, and local government requirements prior to disposal.

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.

TSCA Chemical Action Plans, Chemicals of Concern

Polytetrafluoroethylene (PTFE) (CAS 9002-84-0) Long-Chain Perfluorinated Chemicals (PFCs) Action Plan

CERCLA Hazardous Substance List (40 CFR 302.4)

Not 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)

Not regulated.

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 WHMIS Classification: Not Controlled

California Proposition 65

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

Petrolatum (CAS 8009-03-8)

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 07-08-2020

Version # 01

Further information This SDS supersedes the SDS dated: August 2, 2007

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.