
SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION:

Product name:

**NUFLEX® 302 HIGH TEMPERATURE
GASKET MAKING SILICONE SEALANT**

Recommended use:

Silicone Sealant

Restrictions on use:

No further information available

Manufacturer:

NUCO INC.

150 Curtis Drive
Guelph, Ontario N1K 1N5
Tel: (519)-823-4994
Fax: (519)-823-1099

Emergency telephone:

Infotrac 24 Hour Emergency Tel: (800)-535-5053

SECTION 2 – HAZARDS IDENTIFICATION:

GHS Classification:

Not a hazardous mixture

GHS Label elements:

Not a hazardous mixture

Hazard symbols:

None

Signal word:

None

Hazard statements:

None

Precautionary statements:

Prevention:

Use only outdoors or in a well-ventilated area.

Response :

Not applicable

Storage:

Not applicable

Disposal:

Not applicable

Other hazards:

None known

Supplemental information:

No further information available.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS:

Substance/Mixture:

Mixture

Chemical Name	CAS No.	Concentration (%)
Silicone Dioxide	7631-86-9	5.0 – 10.0
Distillates (Petroleum), Hydrotreated Middle	64742-46-7	5.0 – 10.0
Titanium Dioxide	13463-67-7	1.0 – 5.0
Aluminum	7429-90-5	1.0 – 5.0
Carbon Black	1333-86-4	0.1 – 1.0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

SECTION 4 - FIRST AID MEASURES:

Eye contact:	Flush with copious quantities of lukewarm water for at least 15 minutes. Do not attempt to physically remove the solids or gums from the eye. Seek medical attention immediately if irritation persists.
Skin contact:	Remove contaminated clothing. Wash thoroughly with warm water and non-abrasive soap. Seek medical attention if you feel ill or a reaction develops.
Inhalation:	Remove to fresh air and provide water. Seek medical attention if you feel ill or a reaction develops.
Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Most important symptoms/effects, acute and delayed:	None known.
Indication of immediate medical attention and special treatment needed:	Provide general supportive measures and treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES:

Suitable extinguishing media:	Carbon dioxide, dry chemical, water fog or foam. Water can be used to cool fire exposed containers.
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	Exposure to combustion products such as carbon oxides, silicone oxides and formaldehyde may be hazard to health.
Special protective equipment and precautions for fire fighters:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.

SECTION 6 – ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures:	Follow safe handling advice and personal protective equipment recommendations in Section 8.
Environment precautions:	Discharged into the environment must be avoided. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up:	Restrict access to the area of the spill. Provide ventilation, NIOSH/MHSA approved respirator and protective clothing. Scrape up sealant and place in container for disposal. Clean area as appropriate since silicone materials can represent a slip hazard. Cleaning may require steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup.

SECTION 7 – HANDLING AND STORAGE:

Precautions for safe handling:	Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage, including any incompatibilities:	Store in an adequately ventilated area under dry conditions between 50°F (10°C) to 77°F (25°C) and keep container tightly sealed when not in use. Do not store with strong oxidizing agents.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION:

Control Parameters:

Ingredient	CAS No.	Value Type (form of exposure)	Control parameters/ Permissible concentration	Basis
Silicone Dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m ³ %SiO ₂ (Silica)	OSHA Z-3
		TWA	6 mg/m ³ (Silica)	NIOSH REL
Distillates (Petroleum), Hydrotreated Middle	64742-46-7	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Mist)	5 mg/m ³	OSHA P0
		TWA (Mist)	5 mg/m ³	NIOSH REL
		ST (Mist)	10 mg/m ³	NIOSH REL
Titanium Dioxide	13463-67-7	TWA (Total dust)	15 mg/m ³	OSHA Z-1
		TWA	10 mg/m ³ (Titanium dioxide)	ACGIH
Aluminum	7429-90-5	TWA (Respirable)	5 mg/m ³	NIOSH REL
		TWA (Total)	10 mg/m ³	NIOSH REL
		TWA (Total dust)	15 mg/m ³ (Aluminum)	OSHA Z-1
		TWA (Respirable fraction)	5 mg/m ³ (Aluminum)	OSHA Z-1
		TWA (Pyro powders)	5 mg/m ³ (Aluminum)	NIOSH REL
Carbon Black	1333-86-4	TWA (Respirable fraction)	1 mg/m ³ (Aluminum)	ACGIH
		TWA	3.5 mg/m ³	NIOSH REL
		TWA	3.5 mg/m ³	OSHA Z-1
		TWA (Inhalable fraction)	3 mg/m ³	ACGIH

Engineering controls:

Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations. Use NIOSH/MSHA approved respirators unless local exhaust ventilation is provided or exposures are within guidelines.

Personal protective equipment:

Safety glasses with side-protection, impermeable gloves (e.g., neoprene, nitrile, silver shield (R)), coveralls or apron are important in preventing contamination of eyes, skin and clothing. General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Wash thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Paste, red or black thixotropic sealant
Odor:	Acetic acid
Odor threshold:	Not available
pH (ASTM D1293):	3.2
Melting point/Freezing point:	Not available

Initial boiling point and boiling range:	Not available
Flash point:	>212°F (100°C) Closed Cup Method
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not classified as a flammability hazard
Upper flammability or explosion limit:	Not available
Lower flammability or explosion limit:	Not available
Vapor pressure:	Not applicable
Vapor density:	Not available
Specific gravity:	1.01
Solubility:	Not available
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not applicable
Acid Reserve, g NaOH/100 g (CCCR 2001, Sections 43 and 44):	0.17
Volatile Organic Content:	30 grams per liter, <3% by weight (Chemically Curing Sealants and Caulks – CARB Method 310: VOC less water, less exempt compounds and LVP-VOCs).

SECTION 10 – STABILITY AND REACTIVITY:

Reactivity:	Not classified as a reactivity hazard.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Use at elevated temperatures may form highly hazardous compounds. At above 150°C (300°F) in the presence of air, trace quantities of formaldehyde may be released. Acetic acid is formed upon contact with water or humid air.
Conditions to avoid:	Moisture and incompatible materials.
Incompatible materials:	Strong oxidizing agents or electrophiles (e.g. ferric chloride). Concentrated acids or bases can degrade the silicone polymer.
Hazardous decomposition products:	Carbon oxides, silicone dioxide, metal oxides, formaldehyde and traces of incompletely burned carbon products.

SECTION 11 - TOXICOLOGICAL INFORMATION:

Information on the likely routes of exposure:

Inhalation:	Prolonged inhalation may be harmful.
Ingestion:	May be harmful if swallowed.
Skin contact:	May cause skin irritation on direct contact.
Eye contact:	May cause eye irritation on direct contact.

Symptoms related to the physical, chemical and toxicological characteristics: Acetic acid vapors may irritate eyes, nose and throat. Direct contact with eyes and skin will irritate.

Acute toxicity:

Ingredient name	Result	Species	Dose	Exposure
Silicone Dioxide	LD50 Oral	Rat	>3,300 mg/kg	----
	LC50 Inhalation	Rat	>2.08 mg/L	4 hours
	LD50 Dermal	Rabbit	>5,000 mg/kg	----
Distillates (petroleum), Hydrotreated Middle	LD50 Oral	Rat	>5,000 mg/kg	----
	LC50 Inhalation	Rat	1.78 mg/L	4 hours
	LD50 Dermal	Rat	>2,000 mg/kg	----
Carbon Black	LD50 Oral	Rat	>5,000 mg/kg	----
	LC50 Inhalation	Rat	>0.0046 mg/L	4 hours

Titanium Dioxide	LD50 Oral	Rat	>5,000 mg/kg	----
	LC50 Inhalation	Rat	>6.82 mg/L	4 hours
Aluminum	LD50 Oral	Rat	>5,000 mg/kg	----
	LC50 Inhalation	Rat	>0.888 mg/L	4 hours

Skin corrosion/irritation: Not classified based on available information.
Serious eye damage/irritation: Not classified based on available information.
Aspiration hazard: Not classified based on available information.
Distillates (petroleum), hydrotreated middle (CAS# 64742-46-7) is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.
Specific target organ toxicity – single exposure: Not classified based on available information.
Specific target organ toxicity – repeated exposure: Not classified based on available information.
Respiratory or skin sensitization: Not classified based on available information.
Carcinogenicity: Not classified based on available information.

Titanium Dioxide: is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

Carbon Black: is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

IARC:
Titanium dioxide (CAS# 13463-67-7) - Group 2B
Carbon black (CAS# 1333-86-4) - Group 2B

OSHA:
No ingredient of this product at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

NTP:
No ingredient of this product at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

Reproductive toxicity: Not classified based on available information.
Teratogenicity: Not classified based on available information.
Germ cell mutagenicity: Not classified based on available information.

SECTION 12 – ECOLOGICAL INFORMATION:

Ecotoxicity:

Titanium Dioxide:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): >100 mg/L, 96 hrs.
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (water flea)): >100 mg/L, 48 hrs.
Toxicity to algae: EC50 (Skeletonema costatum (marine diatom)): >10,000 mg/L, 72 hrs.
Toxicity to bacteria: EC50: >1,000 mg/L, 3 hrs.

Aluminum:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 14.6 mg/L, 96 hrs.
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (water flea)): >0.135 mg/L, 48 hrs.
Toxicity to algae: EC50 (Daphnia magna (water flea)): >0.135 mg/L, 48 hrs.
EC50 (Pseudokirchneriella subcapitata (green algae)): >0.004 mg/L, 72 hrs.
Toxicity to fish (Chronic toxicity): NOEC (Pimephales promelas (fathead minnow)): 7.1 mg/L, 28 d.

Carbon Black:

Toxicity to fish: LC50 (Danio rerio (zebra fish)): 1,000 mg/L, 96 hrs.
 Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (water flea)): >5,600 mg/L, 24 hrs.
 Toxicity to algae: NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/L, 72 hrs.

Persistence and degradability: No data available.
Bioaccumulative potential: No data available.
Mobility in soil: No data available.
Other adverse effects: No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS:

Disposal instructions: This material has been evaluated for Resource Conservation and Recovery Act (RCRA) characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.

Waste from residues: Dispose of in accordance with local regulations.

Contaminated packaging: Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 - TRANSPORT INFORMATION:

Shipping information: Not subject to DOT, TDG, IMDG Code or IATA Regulations.

SECTION 15 - REGULATORY INFORMATION:**EPCRA – Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity:**

Ingredients	CAS No.	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic acid	64-19-7	5000	*
Acetic anhydride	108-24-7	5000	*

* Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity:

This product does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: No SARA hazards.

SARA 302: No chemicals in this product are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313: Aluminum (CAS# 7429-90-5): 1.6%

Pennsylvania Right To Know:

Dimethyl siloxane, hydroxy-terminated	70131-67-8	70 – 90%
Silicone dioxide	7631-86-9	5 – 10%
Distillates (petroleum), hydrotreated middle	64742-46-7	5 – 10%
Iron Oxide	1332-37-2	1 – 5%
Titanium Dioxide	13463-67-7	1 – 5%
Aluminum	7429-90-5	1 – 5%
Acetic acid	64-19-7	0 – 0.1%
Acetic anhydride	108-24-7	0 – 0.1%

New Jersey Right To Know:

Dimethyl siloxane, hydroxy-terminated	70131-67-8	70 – 90%
Silicone dioxide	7631-86-9	5 – 10%
Distillates (petroleum), hydrotreated middle	64742-46-7	5 – 10%
Iron Oxide	1332-37-2	1 – 5%
Titanium Dioxide	13463-67-7	1 – 5%
Aluminum	7429-90-5	1 – 5%
Carbon Black	1333-86-4	0.1 – 1%

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

TSCA: All chemical substances in this product are included on or exempted from listing on the TSCA inventory of Chemical Substances.

DSL: All chemical substances in this product comply with the CEPA 1999 and NSR and are on or exempted from listing on the Canadian Domestic Substances List (DSL).

NFPA Profile: Health 1, Flammability 1, Reactivity 0

SECTION 16 - OTHER INFORMATION:

Prepared by: Technical Services Department
Revision date: February 2, 2016

The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.

Form: SDSNUFLEX302HIGHTEMPERATUREGASKETMAKINGSILICONESEALANT Rev.: 1 Date: 02/16