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# MATERIAL SAFETY DATA SHEET

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## SECTION 01 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

Chemical Name: **NUFLEX® 302 GENERAL PURPOSE SILICONE SEALANT**

Manufacturer: **NUCO INC.**  
150 Regal Road  
Guelph, Ontario N1K 1B9  
Tel: (519)-823-4994  
Fax: (519)-823-1099  
Infotrac 24 Hour Emergency Tel: (800)-535-5053

Date: June 26, 2003

Prepared by: Technical Services Department

WHMIS Classification: D2A, D2B

Product Use: Silicone Sealant and Adhesive

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## SECTION 02 – COMPOSITION / INFORMATION ON INGREDIENTS:

Ingredients:	CAS No.	%	LD50(Oral-rat)	LC50(Inhalation-rat)
Amorphous Silica	7631-86-9	10.0 - 30.0	3,160 mg/kg	> 0.139 mg/L (4 hr)
Methyl Triacetoxysilane	4253-34-3	1.0 – 5.0	2,060 mg/kg	not available
Ethyl Triacetoxysilane	17689-77-9	1.0 – 5.0	1,460 mg/kg	not available
Octamethylcyclotetrasiloxane	556-67-2	0.1 – 1.0	1,540 mg/kg	not available
Black Sealant: Carbon Black	1333-86-4	0.1 – 1.0	not available	not available

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555 or 29 CFR 1910.1200

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## SECTION 03 – HAZARDS IDENTIFICATION:

### ROUTES OF ENTRY INTO THE BODY (ACUTE EFFECTS):

Eyes: Direct contact may cause moderate irritation.

Skin: May cause moderate irritation.

Inhalation: Irritates respiratory passages very slightly.

Ingestion: Low ingestion hazard in normal use.

WHMIS HAZARD SYMBOL(S):



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## SECTION 04 - FIRST AID MEASURES:

Eyes: Flush with copious quantities of lukewarm water. Do not attempt to physically remove the solids or gums from the eye. Seek medical attention immediately.

Skin: 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: No first aid should be needed.

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## SECTION 05 - FIRE FIGHTING MEASURES:

Flammable Conditions: Avoid direct sources of heat or ignition in uncured state.

Extinguishing Media: Carbon dioxide, dry chemical, water fog or foam. Water can be used to cool fire exposed containers

Fire Fighting Measures: 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.

Flash Point: Not applicable

Flammability Limits: Lower Explosion Limit - not available  
Upper Explosion Limit - not available

Autoignition Temperature: Not available

Hazardous Decomposition Products: Carbon oxides, silicone dioxide, metal oxides, formaldehyde, and traces of incompletely burned carbon products.

Sensitivity - Impact: None  
Static: None

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**SECTION 06 – ACCIDENTAL RELEASE MEASURES:**

Containment / Clean Up: Restrict access to the area of the spill. Provide ventilation 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 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.

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**SECTION 07 – HANDLING AND STORAGE:**

Handling and Storage: 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.

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**SECTION 08 – EXPOSURE CONTROL / PERSONAL PROTECTION:**

Component Exposure Limits: **Amorphous Silica (CAS# 7631-86-9):** Although the silica is coated with the silicone sealant observe the particulate limits. OSHA PEL: TWA 15 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable fraction. ACGIH TLV: TWA 10 mg/m<sup>3</sup> inhalable particulate, 3 mg/m<sup>3</sup> respirable particulate.  
**Methyl Triacetoxysilane (CAS# 4253-34-3)** forms acetic acid upon contact with atmospheric moisture. Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.  
**Ethyl Triacetoxysilane (CAS# 17689-77-9)** forms acetic acid upon contact with atmospheric moisture. Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.  
**Octamethylcyclotetrasiloxane (CAS# 556-67-2):** Provide adequate ventilation to control exposures within the following exposure guidelines: ACGIH TLV: TWA 10 ppm, STEL 15 ppm; OSHA PEL: TWA 10 ppm.  
**Black Sealant: Carbon Black (CAS# 1333-86-4):** Although the carbon black is coated with the silicone sealant observe the particulate limits. OSHA PEL and ACGIH TLV: TWA 3.5 mg/m<sup>3</sup>.

Respiratory: No respiratory protection should be needed.  
Ventilation: In indoor applications, passive ventilation (opening of doors and windows) is recommended. Local exhaust as necessary to keep exposure levels 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. Wash thoroughly after handling.

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**SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES:**

Physical State: Paste  
Odor and Appearance: Acetic acid / thixotropic sealant  
Odor Threshold: Not available  
Specific Gravity: 1.03  
Vapor Pressure: Not available  
Vapor Density: Not available  
Evaporation Rate: Not available  
Boiling Point: Not available  
Freezing Point: Not available  
pH: Not available  
Coeff. Oil/Water Distribution: Not available

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**SECTION 10 – STABILITY AND REACTIVITY:**

Chemical Stability: Stable  
Incompatible Materials: Strong oxidizing agents or electrophiles (e.g. ferric chloride). Concentrated acids or bases can degrade the silicone polymer.

Reactive Conditions: Moisture and incompatible materials.  
Hazardous Polymerization: Will not occur.

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**SECTION 11 - TOXICOLOGICAL INFORMATION:**

Effects of overexposure: Acetic acid vapors may irritate eyes, nose and throat. Direct contact with eyes and skin will irritate.  
Sensitization: Not Known  
Carcinogenicity: No ingredients considered by IARC, NTP or OSHA to be carcinogens except in the Black Sealant: Carbon Black (CAS# 1333-86-4): IARC Group 2B – possibly carcinogenic to humans.  
Reproductive Toxicity: Evidence of reproductive effects in laboratory animals when exposed to Octamethylcyclotetrasiloxane (CAS# 556-67-2) by inhalation at concentrations of 500 ppm or higher for 70 days prior to mating.  
Teratogenicity: Not known  
Mutagenicity: Not known  
Synergistic Products: Not known

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**SECTION 12 – ECOLOGICAL INFORMATION:**

Air: Complete information is not yet available.  
Water: Complete information is not yet available.  
Soil: Complete information is not yet available.

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**SECTION 13 – DISPOSAL CONSIDERATIONS:**

Waste Disposal: Dispose in accordance with Federal, State / Provincial and local regulations.

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**SECTION 14 - TRANSPORT INFORMATION:**

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

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**SECTION 15 - REGULATORY INFORMATION:**

TSCA Inventory Status: Chemical components listed on TSCA inventory except as exempted.  
NFPA Profile: Health 2, Flammability 1, Reactivity 0  
SARA TITLE III Chemical Listings: Section 302 Extremely Hazardous Substances: None  
Section 304 CERCLA Hazardous Substances: None  
Section 312 Hazard Class: Acute: Yes; Chronic: No; Fire: No; Pressure: No;  
Reactive: No  
Section 313 Toxic Chemicals: None present or none present in regulated quantities.  
State Substance List: This product contains a listed substance(s) that appears on one or more of the Substance Lists for Pennsylvania, Massachusetts and New Jersey: amorphous silica (CAS # 7631-86-9); methyl triacetoxysilane (CAS # 4253-34-3); ethyl triacetoxysilane (CAS # 17689-77-9); dimethylsiloxane, hydroxy terminated (CAS #70131-67-8); and carbon black (CAS# 1333-86-4).  
California Proposition 65 List: None known  
Volatile Organic Content: 32 grams per liter (0.27 lb/gallon), 3.11% by weight (meets California Air Resources Board VOC standard for sealants and caulking compounds 12/31/2002).  
WHMIS Classification: D2A, D2B  
Domestic Substance List: Chemical components listed on DSL except as exempted.

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**SECTION 16 - OTHER INFORMATION:**

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: MSNUFLEX302GeneralPurpose Rev.: 2 Date: 06/03