



# MATERIAL SAFETY DATA SHEET

## BONDAFLEX™ SIL 100 GP SILICONE SEALANT

### 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** BONDAFLEX Silicone Sealant  
**PRODUCT CODE:** SIL 100 GP  
**ADDRESS:** BONDAFLEX Technologies  
 A Division of May National Associates, Inc.  
 4 Brighton Road, Suite 300  
 Clifton, New Jersey 07012  
**PHONE:** (973) 473-3330  
**FAX:** (973) 473-4222  
**EMERGENCY PHONE:** (CHEMTREC) (800) 424-9300  
 International (CHEMTREC) (703) 527-3887  
**PREPARED BY:** A. M. Gilman  
**REVISION DATE:** 8/29/03 (Revision #2)

SUPERSEDES: 12/7/00 (Revision #1)

### 2 - COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

CAS NO.	INGREDIENT	WT %	LETHAL DOSES	EXPOSURE LIMITS						
				TWA		STEL		Ceiling		
				ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
112945-52-5	Silicon Dioxide <sup>a</sup> (Silica, amorphous)	5-10	Oral LD50 - 3160 mg/kg (rat)  Inhalation LCLo - 154 mg/m <sup>3</sup> /6hr (rat)	OSHA	20 <sup>b</sup>	80 <sup>c</sup>	-	-	-	-
				NIOSH	-	6	-	-	-	-
				ACGIH	-	-	-	-	-	-
				CANADA	-	2, 5 <sup>d</sup>	-	-	-	-
64-19-7	Acetic Acid <sup>e</sup>	1-5	Oral LD50 - 3,310 mg/kg (mouse)  Skin LD50 - 1.06 g/kg (rabbit)  Inhalation LC50 - 5,620 ppm/1-hr (mouse)	OSHA	10	-	-	-	-	-
				NIOSH	-	-	-	-	-	-
				ACGIH	10	-	15	-	-	-
				CANADA	-	-	-	-	-	-
63148-62-9	Polydimethylsiloxane (Colors)	1-5	Oral LD50 - >24 gm/kg (rat)	OSHA	No exposure limit guidelines have been established for this material.					
				NIOSH						
				ACGIH						
				CANADA						

<sup>a</sup> Under normal conditions of use no respirable particles should be released from this product.

<sup>b</sup> OSHA - PEL table Z-3: Millions of particles per cubic foot of air.

<sup>c</sup> OSHA - PEL Table Z-3: 80 mg/m<sup>3</sup>.

<sup>d</sup> Respirable mass; Total mass respectively

<sup>e</sup> Acetic acid will be formed upon contact of the product with water or humid air. Provide adequate ventilation to control exposures within the following guidelines: OSHA PEL: TWA 10 ppm, ACGIH TLV: TWA 10 ppm, STEL 15 ppm.



# MATERIAL SAFETY DATA SHEET

## BONDAFLEX™ SIL 100 GP SILICONE SEALANT

### 3 – HAZARDS IDENTIFICATION

Please note that as a service to our customers, hazard warnings and information have been included for ALL chemicals listed in this MSDS. However, not all of these chemicals are defined as "hazardous" by ISO or OSHA standards. Only those chemicals listed in Section 2 of this MSDS are defined by ISO and/or OSHA as "hazardous" based upon the properties and concentrations of each chemical.

#### MOST IMPORTANT HAZARDS

##### MAIN SYMPTOMS:

**EYE:** Direct contact irritates moderately with redness and swelling. Exposure to acetic acid may cause chemical conjunctivitis.

**SKIN:** A single short exposure (less than 24 hours) may irritate. Repeated prolonged contact (24 to 48 hours) may irritate moderately.

**INHALATION:** Vapor overexposure may irritate eyes, nose and throat. Overexposure to silicon dioxide (dust form) may cause irritation and fibrosis, or scarring, of the lungs known as silicosis.

**ORAL:** Small amounts transferred to the mouth by fingers during use, etc., should not injure. Swallowing large amounts may cause digestive discomfort and cause gastrointestinal irritation.

**NFPA HAZARD CODES:** Health: 2 Fire: 1 Reactivity: 0

**Comments:** When heated to temperatures above 150°C in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to the eyes, nose, throat, skin and digestive system. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product.

### 4 – FIRST-AID PROCEDURES

**INHALATION:** Remove to fresh air.

**SKIN CONTACT:** Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other ill effects develop or persist.

**EYE CONTACT:** Immediately flush with water for 15 minutes. Get medical attention.

**INGESTION:** No first aid should be needed.

**COMMENTS:** Treat according to person's condition and specifics of exposure.

### 5 – FIRE-FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO<sub>2</sub>), dry chemical or water spray. Water can be used to cool fire exposed containers.

**UNSUITABLE EXTINGUISHING MEDIA:** None known.

**SPECIFIC FIRE HAZARDS:** None known.

**FIRE-FIGHTING PROCEDURES:** Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire-exposed containers cool.

**FLASH POINT (CLOSED CUP):** Not Applicable - Solid

**FLAMMABILITY LIMITS IN AIR:** LEL: Not Determined  
UEL: Not Determined



# MATERIAL SAFETY DATA SHEET

## BONDAFLEX™ SIL 100 GP SILICONE SEALANT

### HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: silicone dioxide, carbon oxides and traces of incompletely burned carbon compounds and formaldehyde.

### 6 - ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS:

Observe all personal protective equipment recommendations described in sections 5 and 8.

#### ENVIRONMENTAL PRECAUTIONS:

Disposal of collected product, residues, and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations.

#### METHODS FOR CLEANING UP:

Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since some silicone materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents, or detergents. See applicable regulatory compliance information in Section 15.

### 7 - HANDLING AND STORAGE

#### HANDLING:

Use with adequate ventilation. Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines or use respiratory protection. Avoid eye contact. Avoid skin contact.

#### STORAGE:

Use reasonable care and store away from oxidizing materials. Keep container closed and store away from water or moisture. Shelf-life 24 months at 90°F and 50% relative humidity.

### 8 - EXPOSURE CONTROL AND PERSONAL PROTECTION

#### ENGINEERING CONTROLS:

##### LOCAL EXHAUST:

Recommended

##### GENERAL VENTILATION:

Recommended

#### PERSONAL PROTECTIVE EQUIPMENT:

##### EYE PROTECTION:

Use proper protection, safety glasses as a minimum.

##### SKIN AND BODY PROTECTION:

Washing at mealtimes and end of shift is adequate. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.

##### RESPIRATORY PROTECTION:

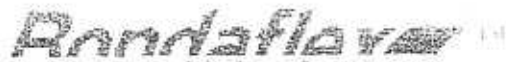
Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data show exposures are within recommended exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls. Suitable Respirator: Organic Vapor / Dust / Mist Type.

##### HYGIENE MEASURES (INGESTION):

Wash hands after handling and before eating. Do not eat, drink, or smoke when handling product.

Comments: Product will evolve acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines (see Section 2) or use respiratory protection.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol / spray applications may require added precautions.



# MATERIAL SAFETY DATA SHEET

## BONDAFLEX™ SIL 100 GP SILICONE SEALANT

### 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	Solid (Paste)
COLOR:	Various
ODOR:	Acetic Acid
pH:	Not Applicable
BOILING POINT (AT 760 MM HG):	Not Applicable
FLASHPOINT:	Not Determined
EXPLOSION PROPERTIES:	Not Determined
VAPOR PRESSURE (AT 100°F):	Not Applicable
VAPOR DENSITY:	Not Applicable
DENSITY:	8.6 lbs/gal
SOLUBILITY IN WATER (%):	None
SPECIFIC GRAVITY (AT 77°F/25°C):	1.03
VISCOSITY (AT 77°F/25°C):	Approximately 350,000 cps
FREEZING / MELTING POINT:	Not Determined
ODOR THRESHOLD:	Not Determined
EVAPORATION RATE:	Not Determined
% VOLATILE BY VOLUME:	Not Applicable
VOLATILE ORGANIC CONTENT (VOC):	3.5% by weight; 36 g/L (0.30 lbs/gal)
NOTE:	The above information is not intended for use in preparing product specifications.

### 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable.
HAZARDOUS POLYMERIZATION:	Hazardous polymerization will not occur.
CONDITIONS TO AVOID:	None known.
MATERIALS TO AVOID:	Oxidizing material can cause a reaction.
HAZARDOUS DECOMPOSITION PRODUCTS:	Water, moisture, or humid air can cause hazardous vapors to form as described in Section 2.

### SECTION 11 - TOXICOLOGICAL INFORMATION

See Section 2 for exposure limits, Section 3 for exposure effects.

ACUTE TOXICITY:	
FOR SILICON DIOXIDE (SILICA, AMORPHOUS):	Oral - lethal dose 50% kill (LD50) - 3,160 mg/kg (rat) Inhalation - lowest published lethal concentration (LCLo) - 154 mg/m <sup>3</sup> /6hr (rat)
FOR ACETIC ACID:	Oral - lethal dose 50% kill (LD50) - 3,310 mg/kg (mouse) Skin - LD50 - 1.06 g/kg (rabbit) Inhalation - lethal concentration 50% kill (LC50) - 5,620 ppm/1-hr (mouse)
FOR POLYDIMETHYLSILOXANE:	Oral LD50 - >24 gm/kg (rat)

#### CHRONIC TOXICITY:

SKIN:	A single short exposure (less than 24 hours) may irritate. Repeated prolonged contact (24 to 48 hours) may irritate moderately. Acetic acid may cause skin irritation.
INHALATION:	Vapor overexposure may irritate eyes, nose and throat. Exposure to acetic acid may cause respiratory tract irritation, although chronic exposure may cause chronic bronchitis. Chronic exposure to silicon dioxide (dust form) may cause irritation and fibrosis of the lungs (silicosis).



## MATERIAL SAFETY DATA SHEET

### BONDAFLEX™ SIL 100 GP SILICONE SEALANT

**ORAL:** Small amounts transferred to the mouth by fingers during use, etc., should not injure. Swallowing large amounts may cause severe gastrointestinal irritation. Ingestion of acetic acid may cause gastrointestinal irritation.

**SPECIFIC EFFECTS:** This material contains the following components with the special hazards listed below.

Carcinogens:	See Below
Teratogens:	None Known
Mutagens:	None Known
Reproductive toxins:	None Known

**CARCINOGENICITY:**

**SILICON DIOXIDE (SILICA, AMORPHOUS):** The IARC has evaluated this chemical and listed it as Group 3, not classifiable as to its carcinogenicity to humans.

---

### SECTION 12 - ECOLOGICAL INFORMATION

---

**FOR SILICON DIOXIDE:**

Environmental Fate: Not available.  
 Environmental Toxicity: Not available.

**FOR ACETIC ACID:**

Environmental Fate: When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into air, this material is expected to have a half-life between 10 and 30 days. When released into water, this material is expected to readily biodegrade. When released into the water, this material is expected to have a half-life between 1 and 10 days. Standard dilution BOD5/TOD = 58% When released into the soil, this material is expected to readily biodegrade. This material is not expected to significantly bioaccumulate. This material has an estimated bioconcentration factor (BCF) of less than 100.

Environmental Toxicity: This material is expected to be slightly toxic to aquatic life.  
 LC50/96-hr – range 10-100 mg/L (fish)

---

### SECTION 13 – DISPOSAL INFORMATION

---

**PRODUCT DISPOSAL:**

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No  
 Federal Hazardous Waste Code: Not Applicable  
 Characteristic Waste: Ignitable: Not Applicable Corrosive: Not Applicable Reactive: Not Applicable  
 TCLP: Not Applicable

**WASTE FROM RESIDUES**

**CONTAMINATED PACKAGING:** Residues of hazardous waste in empty containers should be managed according to 40 CFR 261.7

State or local laws may impose additional regulatory requirements regarding disposal.

---

### SECTION 14 – TRANSPORT INFORMATION

---

DOT Information (49CFR 172.101)

PROPER SHIPPING NAME:	Not Applicable
HAZARD CLASS:	Not Applicable
UN / NA NUMBER:	None
PACKING GROUP:	Not Applicable
QUANTITY LIMITATIONS:	Not Applicable
VESSEL STORAGE REQUIREMENTS:	Not Applicable



# MATERIAL SAFETY DATA SHEET

## BONDAFLEX™ SIL 100 GP SILICONE SEALANT

### SECTION 15 - REGULATORY INFORMATION

#### US FEDERAL REGULATIONS

##### Occupational Health and Safety Administration (OSHA)

Ingredients listed on National Toxicology Program (NTP) Annual Report on Carcinogens

- This product is not known to contain any ingredients currently found on the NTP list

Ingredients listed on International Agency for Research on Cancer (IARC) Monographs

The following ingredient is listed as Group 3.

Group 3 is defined as: The agent (mixture or exposure circumstances) is not classifiable as to its carcinogenicity to humans.

- Silicon Dioxide (Silica, amorphous) 112945-52-5

##### Toxic Substance Control Act (TSCA)

TSCA Status: All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

##### Superfund Amendments and Reauthorization Act (SARA) Title III

###### - Section 302/304

These sections require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) of "Extremely Hazardous Substances" (EHS) listed in Appendix A of 40 CFR 355.

- This material does not contain any components with known CAS numbers on either the TPQs or EHS list.

###### - Section 311/312

These sections require Tier I/Tier II - Emergency and hazardous chemical inventory form.

Minimum thresholds have been established for Tier One/Tier Two reporting under Title III, Section 312. These thresholds are as follows:

For Extremely Hazardous Substances (EHSs) designated under Section 302 of Title III, the reporting threshold is 500 pounds (or 227 kg.) or the threshold planning quantity (TPQ), whichever is lower.

For all other hazardous chemicals for which facilities are required to have or prepare an MSDS, the minimum reporting threshold is 10,000 pounds (or 4,540 kg.).

###### Section 312 Hazard Class:

Acute: Yes  
Chronic: No  
Fire: No  
Pressure: No  
Reactive: No

###### - Section 313

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act:

- This product is not known to contain any chemicals currently found on the Section 313 list



# MATERIAL SAFETY DATA SHEET

## BONDAFLEX™ SIL 100 GP SILICONE SEALANT

### Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Releases of CERCLA hazardous substances, in quantities equal to or greater than their reportable quantity (RQ), are subject to reporting to the National Response Center under CERCLA. Such releases are also subject to state and local regulations under Section 304 of SARA Title III (EPCRA). This material contains the following components and RQs on the CERCLA hazardous substance list.

Chemical	CAS No.	Wt%	Reportable Quantity (RQ) in pounds
Acetic Acid	64-19-7	<1.5	5,000

### US STATE REGULATIONS:

#### California

#### California Safe Drinking Water and Toxic Enforcement Act – Proposition 65

- ◆ This product is not known to contain any chemical currently listed under California Proposition 65.

#### Volatile Organic Content (VOC)

Wt%	g/L	lbs/gal
3.5	36	0.30

Per the California Air Resources Board TITLE 17 Division 3 Chapter 1 Subchapter 8.5 Article 2 §94508, a VOC is a substance with a vapor pressure greater than or equal to 0.1 mmHg at 20°C (68°F), or is a chemical compound with less than or equal to 12 carbon atoms if the vapor pressure is not known, or is a chemical compound with a boiling point less than or equal to 216°C (421°F).

#### State Right-to-Know Regulations

States within the US that have promulgated State Right-to-Know regulations with chemical listing requirements including the chemicals in this product are provided below.

Chemical	CAS No.	Wt%	States
Silicon dioxide	112945-52-5	5-10	Florida, Massachusetts, Minnesota, Pennsylvania
Acetic acid	64-19-7	1-5	Florida, Massachusetts, Minnesota, New York, Pennsylvania, Washington

### INTERNATIONAL:

#### Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

#### Canadian DSL

All ingredients in this product are currently listed on the Canadian Domestic Substances List (DSL) and would not be considered new for the purposes of the Canadian Environmental Protection Act (CEPA).

#### Note:

The recipient of this product should be aware of the possible existence of additional local regulations, which may be applicable to this product.

---

### SECTION 16 – OTHER INFORMATION

---

These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.