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# Material Safety Data Sheet

**0816 – 0826 Series – All Containers – Clear & All Colors – 100% Silicone – Acetoxy Cure**

**MSDS # 0080A**  
**Revision 1**

**NFPA Rating:** 1-0-0  
**HMS Rating:** 1-0-0-B

## SECTION I

## EMERGENCY TELEPHONE NO.

**TRADE NAME**  
(IF NONE, PUT CHEMICAL)

Red Devil 100% Silicone Sealant RTV – Acetoxy Cure

(918) 825-5744 (24 Hrs.)

## SECTION II - HAZARDOUS INGREDIENTS

### PRODUCT CONSISTS OF:

Silica\*\* [7631-86-9] (as Amorphous silica, total dust)

11

20

20

mg/m3

Dimethylsiloxane, hydroxy-terminated (70131-67-8)

60

NE

NE

Ethyltriacetoxysilane\*\*\* (17689-77-9)

2

NE

NE

Methyltriacetoxysilane\*\*\* [4253-34-3]

2

10

10

ppm

Polydimethylsiloxane (63148-62-9)

1 - 5

10

10

ppm

Titanium dioxide\*\* (in white product only)

- (as nuisance particulate, total) [13463-67-7]

2

10

15

mg/m3

Non-hazardous ingredients\*

>75

NA

NA

\*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910).

\*\*Inhalation of particulates unlikely due to product's physical state

\*\*\*Observe limits for acetic acid, formed during curing on exposure to water or humid air.

VOC: 3.1%/wt. CARB Compliance: YES. Prop 65 Ingredients: NONE

## SECTION III - PHYSICAL DATA

**BOILING POINT (°F)**

NE

**SPECIFIC GRAVITY (H<sub>2</sub>O=1)**

1.0

**VAPOR PRESSURE (MM Hg.)**

NE

**PERCENT VOLATILES BY VOLUME (%)**

<5

**VAPOR DENSITY (AIR=1)**

>1

**pH**

NE

**SOLUBILITY IN WATER**

Insoluble

**EVAPORATION RATE**

NA

**APPEARANCE AND ODOR**

Thick liquid/sealant consistency; slight vinegar odor; Clear, White & Various Colors

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT (Method used)**

>200°F

**FLAMMABLE LIMITS**

**LEL**

NE

**UEL**

NE

**EXTINGUISHING MEDIA**

Carbon dioxide or foam

**SPECIAL FIRE FIGHTING PROCEDURES**

No special procedures required.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

None known

NA - Not Applicable

NE - Not Established

UN - Unavailable

## SECTION V - HEALTH HAZARD INFORMATION

### SYMPTOM/EFFECTS OR OVEREXPOSURE

Eye, nose and throat irritation. Possible skin irritation.

### FIRST AID

#### EYES

Immediately flush eyes with large amounts of water while holding the eyelids open. Get medical attention if irritation persists.

#### SKIN

Wipe material from skin with cloth or paper towel, then wash exposed area with soap and water. Get medical help if irritation persists.

#### INHALATION

Move victim to fresh air. Get medical help if irritation persists.

#### INGESTION

Contact local poison control center or physician IMMEDIATELY!

## SECTION VI - REACTIVITY DATA

#### STABILITY

Normally stable. Avoid extreme heat

#### INCOMPATIBLE MATERIALS

Moisture will release acetic acid vapor

#### HAZARDOUS DECOMPOSITION PRODUCTS

Silicon dioxide, Carbon monoxide, Carbon dioxide, traces of formaldehyde

## SECTION VII - SPILL OR LEAK PROCEDURES

#### PROCEDURES

Wear personal protective equipment (See Section VIII). Clean up with absorbent material.

#### WASTE DISPOSAL METHOD

Dispose of according to Local, State, and Federal regulations.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

#### RESPIRATORY

Not normally required. If TLV is exceeded, or for symptoms of overexposure, wear a NIOSH-approved respirator for organic vapors.

#### EYEWEAR

Wear safety glasses.

#### CLOTHING/GLOVES

Not normally required; in situations of extended skin contact, neoprene or other chemical resistant gloves are recommended.

#### VENTILATION

Local exhaust may be necessary under some handling/use conditions.

## SECTION IX - SPECIAL PRECAUTIONS

Store in a closed container in dry area. NOTE: Do not wear contact lenses while applying this material, as acetic acid vapor may become trapped under lenses. This product does not contain ingredients listed in Section 313 of SARA Title III and 40 CFR 372.65. This product does not contain carcinogens (at 0.1% or greater) as defined by IARC, NTP or OSHA. PROPER SHIPPING NAME: N/A, HAZARD CLASS: N/A, UN/NA NUMBER: N/A, PACKING GROUP: N/A. Titanium Dioxide added to Massachusetts Right to Know List, Minnesota Hazardous Substance List, New Jersey Right to Know List, Pennsylvania Right to Know List & Rhode Island Hazardous Substance List.

Reviewed By Larry G. Brandon  
NAME

VP Technology & General Manager  
TITLE

February 15, 2006  
Date

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.

0816, 0826 Series



## Technical Data Sheet

**100% Silicone Sealant – 0810,  
0816, 0826 Series -**

### Description

A high-performance 100% silicone sealant ideal for many general purpose applications. Spec-compliant formulation is available in Clear, White & various other colors. Cures upon exposure to moisture in the air. Not paintable.

### Key Features

- Meets various performance specifications: ASTM C920 Class 25, Fed Specs TT-S-00230C Class A and TT-S-001543A, CEBTP 432.6 140-2, Mil Spec 46106A, CGSB 19C9-9B, DIN 18540 Part 2, OREX 150031-2.
- Conforms to FDA No 21 CFR 177.2600 (Product appropriate for incidental food contact in federally inspected meat & poultry plants (except 0816/41), Conforms to FDA Requirements.
- Underwriters Laboratories Recognized Component
- Excellent UV Resistance
- Excellent Adhesion to many surfaces
- Not Paintable

### Uses

Adheres to Glass, Fiberglass, Ceramic, Non-oily woods, Porcelain, Most metals, Most plastics & rubbers & Most painted surfaces.

### Surface Preparation

Surface should be completely clean, dry & free of contaminants such as dirt, dust, grease, oil & other residue or material that may interfere with adhesion. Remove mildew by scrubbing with a solution of 4 oz. TSP (Trisodium Phosphate), 1 quart of liquid bleach mixed with 3 quarts of warm water. Protect eyes & hands by wearing goggles/face shield & chemical resistant gloves. Thoroughly rinse surface & allow to dry completely prior to sealant application.

### Directions

1. Clip off tip of spout @ a 45 degree angle to desired size.
2. Apply using steady, even pressure to completely bridge joints.
3. Smooth sealant using finger, tongue depressor or back of spoon dipped in soapy water solution, for a neat appearance.
4. Wipe away excess with a dry cloth or towel before surface skins.
5. After cure, carefully remove with a razor blade, taking care not to undercut sealant bond to substrate or apply Red Devil Caulk Remover & follow label directions.

<u>Physical/Performance Property</u>	<u>Test Method</u>	<u>Typical Result</u>
Weight Per Gallon	Gardner Cup	8.75 +/- 0.25
Specific Gravity	Calculated	1.049
Total Non Volatile % Solids (Weight)	Computrac Analyzer	> 90%
Extrudability/Application (as packaged)	Semco Gun (6 oz @ 50 psi)	60 seconds +/- 10
Consistency/Appearance	Visual Observation	Smooth, viscous paste
Odor	Subjective	Vinegar (Acetic Acid)
Base Polymer	Known	Proprietary Siloxane blend
Pigment/Filler	Known	Amorphous Fumed Silica
Freeze/Thaw Stability	Test Lab 0 F/77 F @24 hrs or ASTM C731	Passes 5 Cycles
Shelf Life	Lab 50 C Oven – Accelerated	Minimum 1 Yr @ 77F
Slump	ASTM D2202 Jig	0
Artificial Weathering	ASTM – QUV Tester	No Change @ 15,000 hrs QUV
Low Temperature Flexibility	ASTM D746	Pass
Tooling Time	Test Lab	5 to 10 minutes
Tack Free Time	ASTM D2377	10 to 20 minutes
Cure Time	Test Lab (77F/25C 3 mm thickness)	24 hrs (cures approx 1/8 in/24 hrs)
Shore A Hardness	ASTM D2240	26 +/- 3
Storage Conditions	Test Lab	40F to 90F – Original Container
Application Temperature	Test Lab	10F to 100F
Service Temperature	Lab Oven/QUV/Freezer/OE Fence	-60F to 400F (Intermit. To 500F @ full cure)
Tooling	Test Lab/Field Evaluation	Excellent @ 5 to 10 minutes
Paintability	Test Lab/Field Evaluation	Not Paintable
Joint Movement Capability	Test Lab	+/- 25% (50% Total Movement)
Dielectric Strength	Test Lab (D887/D149)	22 KV/MM
Dielectric Constant	Test Lab (D924/D150 @ 1 MHZ)	2.7
Dissipation Factor	Test Lab (D924/D150 @ 1 MHZ)	0.002
Volume Resistivity (X CM)	Test Lab	2 X 10 to the 15 <sup>th</sup> power

## Clean Up

Wipe excess with dry towel or paper towel prior to cure. Wash skin with mild soap & water. Clean tools with mineral spirits prior to cure. Cured sealant may be removed using a razor blade taking care not to undercut seal to substrate.

## For Best Results

- Complete all painting prior to sealant application.
- Avoid applications of total confinement as sealant cures through contact with atmospheric moisture.
- Complete tooling of applied bead within 5 to 10 minutes.
- If masking tape is used to assure a straight edge bead it must be removed prior to formation of tack free skin (typically 10 to 20 minutes).
- Use with adequate ventilation as sealant gives off acetic acid (vinegar-like odor) during application & cure. (No odor present following complete cure)

## Color

Clear (Translucent), White, Almond, Dark Brown, Gray, Black

## Packaging

10.1 oz. HDPE Cartridge (0816/0826 Series), 2.8 oz. metal squeeze tube (0810 Series)

## Limitations

- Sealant not paintable. Complete all painting prior to sealant application.
- Not recommended for full-time water immersion applications.
- Not recommended for application in totally confined areas as atmospheric moisture is required for sealant cure.
- Sealant does not adhere well to Teflon coated materials, Polyethylene, Polypropylene or Methylmethacrylate (Plexiglas). Not recommended for use on Polycarbonate.
- Not for use on or near sensitive metals such as Copper, Brass, Zinc, Carbon Steel, Galvanized Iron or Magnesium as corrosion may occur during sealant's acetic acid release.

## Environmental, Safety & Transportation Information

<u>Criteria</u>	<u>Evaluation Method</u>	<u>Status</u>
CARB Compliance	Documents Review	Yes
Prop 65 Ingredients	Documents Review	None
DOT Proper Shipping Name	Review of Regs	Not Regulated by DOT
DOT Hazard	Review of Regs	N/A
DOT UN/NA Number	Review of Regs	N/A
Packing Group	Review of Regs	N/A
VOC Content	Calculated	< 1.5%/wt, < 40 g/L

**CAUTION: NOT FOR INTERNAL CONSUMPTION. KEEP OUT OF REACH OF CHILDREN & PETS. KEEP FROM FREEZING. DIRECT CONTACT WITH UNCURED SEALANT IRRITATES EYES & MAY IRRITATE SKIN. SEVERITY INCREASES WITH PROLONGED CONTACT. OVEREXPOSURE TO VAPOR MAY IRRITATE EYES, NOSE & THROAT. AVOID BREATHING OF VAPOR. PROVIDE ADEQUATE VENTILATION TO MAINTAIN VAPORS BELOW DISCOMFORT LEVEL. IN CASE OF INHALATION ILL EFFECTS, REMOVE TO FRESH AIR. SEALANT RELEASES ACETIC ACID VAPOR (VINEGAR ODOR) DURING APPLICATION & CURE. DO NOT HANDLE CONTACT LENSES WITH SEALANT ON HANDS. FULLY CURED SEALANT IS NON-HAZARDOUS. (See MSDS for additional information)**

**Contains Titanium Dioxide (White/Colors); added to Massachusetts Right to Know List, Minnesota Hazardous Substance List, New Jersey Right to Know List, Pennsylvania Right to Know List & Rhode Island Hazardous Substance List.**

## LIMITED WARRANTY

Recommendations for use of this product are based on tests we believe to be reliable. Manufacturer and seller are not responsible for results where this product is used under conditions beyond our control. If when applied as directed, this material peels, cracks or separates, it will be replaced without charge upon presentation of proof of purchase and used cartridge. This limited warranty only applies to residential use and damages including consequential damage and other remedies are excluded. No other warranties apply, including fitness for a particular purpose.

TDS Number: 0810TD, 0816TD, 0826TD Series (including Clear, White & Colors)

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SEE MSDS FOR ADDITIONAL DATA/INFORMATION