



Safety Data Sheet

Issue Date January 13, 2016

Version 1

1. IDENTIFICATION

Product Identifier

Product Name F-Seal 181 - Fiber Reinforced Duct Sealant (White or Gray)

Other means of identification

SDS # RD-0092DWX

Product Code(s) 0846DW, 0845DW, 0841DW, 0847DW, 0848DW, 0846DX, 0845DX, 0841DX, 0847DX, 0848DX

Recommended use of the chemical and restrictions on use

Recommended Use Seal HVAC Duct Systems.

Details of the supplier of the safety data sheet

Supplier Address

Red Devil, Inc.
4175 Webb Street
Pryor, Oklahoma 74361
www.reddevil.com

Emergency Telephone Number

Company Phone Number 918-825-5744

Fax: 918-825-5761

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance White or Gray paste

Physical State Solid Water Based Sealant

Odor Mild

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Calcium Carbonate	1317-65-3	<50
Aqueous Polymer Emulsion Blend	Proprietary	<35
Benzoate Ester	Proprietary	<5
Titanium dioxide	Proprietary	<1
Non-hazardous Ingredients*	Proprietary	<20
Fiber Reinforced Additive	Proprietary	<1

*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). (Calcium Carbonate, Titanium Dioxide) Inhalation of particulates unlikely due to product's physical state.

4. FIRST-AID MEASURES

First Aid Measures

- General Advice** Provide this SDS to medical personnel for treatment.
- Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention/advice.
- Skin Contact** Wash w/ soap & water for @ least 15 minutes. Get medical attention if symptoms persist. Remove & wash contaminated clothing.
- Inhalation** Remove to fresh air. If breathing is difficult, leave area to obtain fresh air. If breathing remains difficult, get medical attention.
- Ingestion** Do not induce vomiting unless directed by medical personnel. If vomiting occurs, lean patient forward to maintain an open airway & prevent aspiration. Get immediate medical attention.

Most important symptoms and effects

- Symptoms** Prolonged or repeated skin contact may result in dermatitis (red, dry skin). Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness and discomfort. Irritating to mouth, throat, and stomach if ingested. May cause gastrointestinal irritation, nausea, diarrhea, and vomiting. Overexposure to vapors during application and curing may mildly irritate respiratory tract and result in coughing and sneezing.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician** Provide general supportive measures and treat symptomatically. Medical Conditions Aggravated By Exposure: Dermatitis or other pre-existing skin conditions may be aggravated by overexposure to this product.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO2). Dry chemical. Water spray (fog). Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

- Unsuitable Extinguishing Media** Not determined.

Specific Hazards Arising from the Chemical

Product is combustible & may ignite if exposed to high temperature or direct flame.

Hazardous Combustion Products Carbon, titanium & iron oxides, depending upon formulation.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
Other Information	Small Spills: 1 drum or less – Level D Equipment (gloves, chemical resistant apron, boots & eye protection). Large Spills: Rubber gloves, rubber boots, face shield & Tyvek suit as a minimum. Minimum level of PPE for releases in which the oxygen level is < 19.5% or is unknown, should be Level B: triple gloves (rubber gloves & nitrile gloves over latex gloves), chemical resistant suit, fire-retardant clothing & boots, hard hat & self-contained breathing apparatus.
For Emergency Responders	Restrict access to spill area.
Environmental Precautions	Minimize use of water to prevent environmental contamination. Prevent spill or rinse from contaminating storm drains, sewers, soil or groundwater. Do not allow discharge containing this material to enter streams, ponds, estuaries, oceans or other waters unless in accordance w/ requirements of National Pollutant Discharge Elimination System (NPDES) permit & permitting authority has been notified in writing prior to discharge. Do not allow discharge containing this material to enter sewer systems w/o previously notifying local sewage treatment plant authority. For information, contact State Water Board or EPA Regional Office Other: U.S. regulations may require reporting of spills of this material reaching surface waters if sheen is formed.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Use absorbent material to contain spill.
Methods for Clean-Up	Sweep up absorbed material and shovel into suitable containers for disposal. Wash area with soap and water. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling	Avoid breathing vapors. Use only with adequate ventilation. Open windows & doors to ensure fresh air cross-ventilation during application and curing. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes or clothing. While handling product keep out of reach of children and pets. Do not eat or drink while handling this material. See section 6 of this SDS for clean up instructions.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep tightly closed in a dry and cool place. Close container after each use. Store containers away from excessive heat & freezing. Do not store @ temperatures above 120 ° F. Store away from incompatible materials. Protect from direct sunlight. To maximize shelf life, store @ temperatures below 26C (80F).
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Incompatible Materials Strong acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines Exposure guidelines / protective equipment are for routine handling and accidental spills

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium Carbonate 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Titanium dioxide	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³

Appropriate engineering controls

Engineering Controls Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations & standards.

Skin and Body Protection Skin: Wear chemical impervious gloves (eg: Nitrile or Neoprene). Use triple gloves for spill response. If necessary, refer to appropriate regulations & standards.

Body: Use protection appropriate for task (eg: lab coat, coveralls, Tyvek suit). If necessary, refer to OSHA Technical Manual (Sec. VII: Personal Protective Equipment) or appropriate Standards of Canada. Use foot protection, as described in appropriate regulations & standards.

Respiratory Protection If mists or sprays are created, use appropriate respiratory protection. Oxygen levels below 19.5% considered IDLH by OSHA. In such instances, use full-facepiece pressure demand SCBA or a full facepiece, supplied air respirator w/ auxillary self-contained air supply.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid Water Based Sealant	Odor	Mild
Appearance	White or Gray paste	Odor Threshold	Not determined
Color	Gray or White		

Property **Note: The information below is not intended for use in preparing product specifications**

pH	8.0-9.0	
Melting Point/Freezing Point	< 0° C / < 32° F	
Boiling Point/Boiling Range	~ 98.88-104.44° C / ~210-220° F	
Flash Point	> 93.33° C / > 200° F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Unknown	
Lower Flammability Limit	Unknown	
Vapor Pressure	Not established	
Vapor Density	Less than air	
Specific Gravity	~1.50-2.00	@ 25°C (77 °F)
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition Temperature	Unknown	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Additional Information	%/wt Volatile: < 20%	
VOC Content (%)	<1.5%	
VOC Content	<25 g/L	

10. STABILITY AND REACTIVITY

Reactivity

Cures upon contact with air.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Incompatible Materials. Excessive heat or cold.

Incompatible Materials

Strong acids.

Hazardous Decomposition Products

Thermal decomposition can generate irritating dust, fumes and toxic gases (carbon, titanium, and iron oxides, depending upon formulation).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact

Eye contact may result in tearing, redness & pain.

Skin Contact

Prolonged and frequent contact may cause redness and irritation. Repeated skin contact may cause dermatitis.

- Inhalation** Overexposure to vapors during application & curing may mildly irritate respiratory tract & result in coughing & sneezing.
- Ingestion** May cause gastrointestinal irritation, nausea, diarrhea, and vomiting.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide	> 10000 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

- Symptoms** Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Sensitization** Not known to be human skin or respiratory sensitizers.
- Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. Titanium dioxide is a possible carcinogen when it appears as a respirable dust. Trace residual Formaldehyde present in base emulsion viewed as possible cancer hazard. Silica, crystalline present in small amount in Calcium Carbonate filler: Known carcinogen. Crystalline Silica is considered to be a human carcinogen when in respirable form (dust / powder).

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X

*IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present*

- Target organ effects** Acute: Eyes & Skin. Chronic: Skin.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

PRACTICES SHOULD BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.
Not tested for aquatic or animal toxicity. Release of product to terrestrial, atmospheric & aquatic environments should be avoided.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea

Persistence/Degradability

Not tested for persistence & biodegradability

Bioaccumulation

Not tested for bio-accumulation potential

Mobility

Not tested for mobility in soil

Chemical Name	Partition Coefficient
Ammonium Hydroxide 7664-41-7	-1.14

Other Adverse Effects

Environmental Exposure Controls: Should be maintained so as to prevent release to the environment (atmospheric release, release to waterways & spills)

Ozone

Not expected to produce any ozone depletion

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Not Applicable

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

Not regulated

IATA

Not regulated

IMDG

Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Listed
 DSL Listed
 NDSL Listed

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
N/A	N/A	N/A	N/A

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
 Chronic Health Hazard No
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
N/A	N/A	N/A	N/A

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
N/A	N/A			X

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Titanium dioxide	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Calcium Carbonate 1317-65-3	X	X	X
Titanium dioxide	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	1	1	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	1	1	0	Not determined

Issue Date January 13, 2016
 Revision Date:
 Revision Note

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.

End of Safety Data Sheet