

# FSB1000 - Formulated Soil Binder



## Reliable Dust Control.

FSB1000-Formulated Soil Binder is an acrylic co-polymer emulsion with added cohesive agents designed as a premium eco-friendly soil binder. FSB1000-Formulated Soil Binder will hold down the dust and resist weatherability without causing harm to the environment. After application, FSB1000-Formulated Soil Binder will penetrate to lower substrates and will bind the particles together, forming heavier solids that will quickly settle back to the surface to control fugitive dust.

### BENEFITS

- *Biodegradable*
- *Soil Binder*
- *Economical*
- *Proven Performance*
- *Environmentally Safe*

### APPLICATIONS

*Construction Sites  
Unpaved Roads  
Driveways  
Parking Lots  
Traffic Roads  
Trails  
And More...*

**SOIL**  **TECH**  
**BALANCING CONSTRUCTION WITH NATURE**

Soil-Tech Corporate Office  
6420 S. Cameron Drive, Ste. 207  
Las Vegas NV, 89118  
TEL: (702) 873-2023  
FAX: (702) 873-0915  
[www.soil-tech.com](http://www.soil-tech.com)

# FSB1000

## Formulated Soil Binder

## Application Rates & Techniques

### APPLICATION INSTRUCTIONS

As with all dust suppressants, application rates and methods depend upon the site, environment, soil type, and more. Please contact your Soil-Tech representative for site specific recommendations.

#### 1. Dilution

Dilute FSB1000-Formulated Soil Binder 1 part to 10 parts water into a water truck. No mixing is necessary. Dilution rates will vary based on soil type and penetration depth and soil moisture content.

#### 2. Application

Apply FSB1000-Formulated Soil Binder in 3-4 passes. Do not let the application area dry between coats.

#### 3. Curing

Cure time is approximately 24-72 hours @ 70 degrees Fahrenheit.

#### 4. Long-Term Maintenance

Visual inspection of treated area will indicate when maintenance is due.

**Contact your Soil-Tech representative for site specific application rates and instructions.**

Application Type	Gallons / Acre
<i>Please consult your Soil-Tech representative for specific application rates tailored for your project.</i>	



### SOIL CLASSIFICATION

All soil is not equal. Prior to any dust control recommendations, it is very important to test your soil. Particle size, liquid limit and plasticity can all have a dramatic effect on the success of any dust control measures and should be determined before any application.

Sand Sieve Analysis is a practice or procedure used to assess the particle size distribution of granular material. The size distribution is critical in determining the type of dust suppressant needed and application rates to be used. The practice of Sieving is quick and accurate, measuring the maximum diameter of a sediment grain. There are four aspects of this proven test, including sizing, sorting, kurtosis, and skewness. After the analysis, we can determine the percent sand, silt and clay in your soil, and textural class, hereby recommended an accurate application rate and method for your needs.

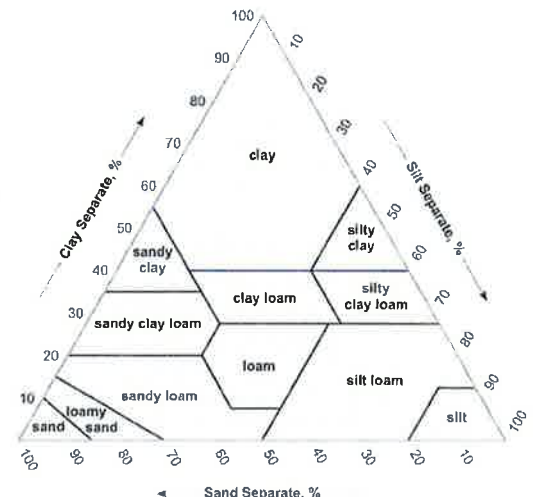
We also recommend a soil moisture test to determine the liquid limits of your soil. Depending upon the water content of the soil, it may appear in four states: solid, semi-solid, plastic and liquid. In each state the consistency and behavior of a soil is different and thus so are its engineering properties. Thus, the boundaries between each state can be defined based on a change in the soil's behavior.

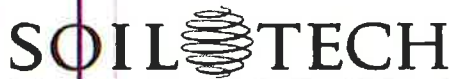
All of these tests and classifications will help determine the best dust control product, application rates and techniques to ensure a successful application.

**Soil-Tech is the premier habitat restoration provider in the Mojave Desert, and a leader in developing products and services designed to balance development with the natural environment.**

**We would love the opportunity to partner with you to reduce the environmental impact of your next project.**

Soil Textural Triangle





BALANCING CONSTRUCTION WITH NATURE

# FSB 1000 - Formulated Soil Binder

## MATERIAL SAFETY DATA SHEET

MSDS No: 00120FS0101512

Date: 10/15/12

Supersedes: N/A

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** FSB 1000 – Formulated Soil Binder

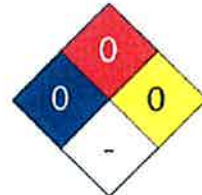
**Product Intended Use:** Dust Palliative, Soil Stabilizer, Slope & Erosion Control

**Synonyms & Chemical Family:** Acrylic Co-Polymer

**Manufacturer:** Soil Tech  
6420 S. Cameron Dr., Suite 207  
Las Vegas, NV 89118

**Emergency Phone No.:** CHEMTREC - 1-800-424-9300

HMIS Rating



### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Percent	CAS NO.
Acrylic Co-Polymer	35 – 50 %	25067-01-0
Water	50 – 65 %	7732-18-5

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**Appearance and Odor:** White milky liquid, sweet odor.

**Statement of Hazards:** Warning! May cause slight eye and skin irritation.  
No irritation hazards in normal industrial use.

#### POTENTIAL HEALTH EFFECTS

**Likely routes of exposure:** Eyes, skin, inhalation.

**Eye contact:** Direct contact may cause eye irritation. No irritation in normal industrial use.

**Skin contact:** Prolonged or repeated exposure may cause skin irritation. No irritation in normal industrial use.

**Inhalation:** Avoid breathing vapors or mists. No irritation in normal industrial use.

#### CARCINOGENICITY

**NPT:** This material does not contain 0.1% or more of any chemical listed by the National Toxicology Program (NTP) as a carcinogen.

**IARC:** This material does not contain 0.1% or more of any chemical listed by the International Agency for Research on Cancer (IARC) as a carcinogen.

**OSHA:** This material does not contain 0.1% or more of any chemical listed by the Occupational Safety and Health Administration (OSHA) as a carcinogen.

### 4. FIRST AID MEASURES

**Skin contact:** Wash with water and soap. If skin irritation persists, call a physician.

**Eye contact:** Rinse with plenty of water. If eye irritation persists, consult a specialist.

**Inhalation:** Remove individual to fresh air after an airborne exposure if any symptoms develop, as a precautionary measure.

**Ingestion:** If swallowed, do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS.

**NOTE(S) TO PHYSICIAN:** None.

### 5. FIRE AND EXPLOSION HAZARD DATA

**Flashpoint:** This material is non-flammable.

**Flammable Limits:** None established.

**Extinguishing Media:** Use water spray, foam, dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

**Unusual Hazards:** There is a possibility of pressure buildup in closed containers.



**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.

**Environmental precautions**

Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**Methods for cleaning Up**

Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

**7. STORAGE AND HANDLING PROCEDURES**

**Handling**

No special handling instructions due to toxicity. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container tightly closed. Avoid breathing vapors, mist or gas.

**Storage**

Store in a cool, dry place. Avoid high temperatures and freezing.

**8. EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION**



**Permissible Limits:**

There are no Personal Exposure Limits (PEL), Occupational Safety and Health Administration OSHA exposure limits and American Conference of Governmental Hygienists (ACGIH) limits for this product. Additionally, there are no Threshold Limit Values (TLV) or Short Term Exposure Limits (STEL) established for this product.

Eye Protection:	Wear safety glasses when handling this product.
Skin Protection:	Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed area with mild soap and water before eating, drinking, and when leaving work.
Respiratory Protection:	No respiratory protection required under normal conditions of use. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).
Ventilation:	No exposure limits exist for the constituents of this product. No engineering controls are likely to be required to maintain operator comfort under normal conditions of use.
Other Protective Clothing/Equipment:	None.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical Form:	Liquid
Color & Odor:	Milky White (clear when cured); sweet, mild odor
Boiling Point:	>100 C (>212 F)
Vapor Pressure (mm Hg):	17.0 mm Hg at 20 C (68 F) water
Specific Gravity:	1.00 – 1.20; 9.0 lbs./gallon
pH	4.5-5.5
Solubility in Water:	Dilutable.

**10. STABILITY AND REACTIVITY DATA**

Stability:	Stable under normal storage conditions.
Materials to Avoid:	There are no known materials which are incompatible with this product.
Hazardous Polymerization:	Product will not undergo polymerization.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide.

**11. TOXICOLOGY DATA**

Acute Oral Toxicity:	LD50 rat > 5,000 mg/kg
Acute Dermal Toxicity:	LD50 rabbit > 2,000 mg/kg
Skin Irritation:	Rabbit slight to moderate skin irritation.
Eye Irritation:	Rabbit slight to moderate irritation.
Subchronic Toxicity:	None.

**12. ECOLOGICAL INFORMATION**

**AQUATIC TOXICITY:**

Toxicity tests were completed on the base materials used in this product. The test results have demonstrated FS Test Plot to be non-toxic to fish. A product is considered to be toxic to fish if its LC 50 is <1ppm.

Rainbow Trout 96-hour survival:	> 1,500 mg/L undiluted product
Fathead Minnow 96-hour survival:	> 1,500 mg/L undiluted product

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Water Flea 96-hour survival: > 1,500 mg/L undiluted product

### 13. DISPOSAL INFORMATION

Caution: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete. Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste.

### 14. TRANSPORT INFORMATION

#### US DOT

FSB 1000 – Formulated Soil Binder is non-regulated.

Refer to shipping Bill of Lading for shipping class, international tariff codes, etc.

Proper shipping name: N/A

Hazard class: N/A

Hazard identification number: N/A

Packaging group: N/A

Transport label: N/A

### 15. REGULATORY INFORMATION

OSHA Status:

This product as supplied is non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

TSCA Section 8(b) Inventory Status:

All components to his product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SARA Title III, Section 313:

This product contains no toxic chemical(s) at or above the de minimus concentrations subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

CERCLA Information:

Releases of this material to air, land or water are not reportable to the national response center under the comprehensive environmental response, compensation, and liability act (CERCLA) or to state and local emergency planning committees under the superfund amendments and reauthorization act (SARA) Title III Section 304.

### 16. OTHER INFORMATION

#### NFPA HAZARD RATING (National Fire Protection Association)

0	Fire:
0	Health:
0	Reactivity:
--	Specific Hazard:

Materials that must be preheated before ignition can occur.

Materials which on intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical treatment is given.

Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.

None

# Material Safety Data Sheet

FSB 1000 – Formulated Soil Binder

Health Hazard	Fire Hazard	Reactivity	Specific Hazard
4 – Deadly	4 – Below 73° F	4 – May detonate	OX Oxidizer
3 – Extremely Hazardous	3 – Below 100° F	3 – Shock and heat may detonate	ACID Acid
2 – Hazardous	2 – Below 200° F	2 – Violent chemical change	ALK Alkali
1 – Slightly Hazardous	1 – Above 200° F	1 – Unstable if heated	COR Corrosive
0 – Non-hazardous	0 – Will not burn	0 – Stable	

Rating	Health Hazard	Fire Hazard	Reactivity	Protective Equipment Guide
	<p><b>Extreme:</b> Highly toxic. May be fatal on short term exposure. Special protective equipment required.</p> <p><b>Serious:</b> Toxic. Avoid Inhalation or skin contact.</p>	<p><b>Extreme:</b> Extremely flammable gas or liquid, Flash Point below 73° F</p>	<p><b>Extreme:</b> Explosive at room temperature.</p>	<p>A – Safety Glasses</p> <p>B – Safety Glasses, Gloves</p> <p>C – Safety Glasses, Gloves, Protective Apron</p> <p>D – Face Shield, Gloves, Protective Apron</p> <p>E – Safety Glasses, Gloves, Dust Mask</p>
	<p><b>Moderate:</b> Moderately toxic. May be harmful if inhaled or absorbed.</p>	<p><b>Serious:</b> Flammable. Flash Point 73° F to 100° F.</p>	<p><b>Serious:</b> May explode if shocked, heated under confinement or mixed with water.</p>	<p>F – Safety Glasses, Gloves, Protective Apron, Dust Mask</p> <p>G – Safety Glasses, Gloves, Vapor Respirator</p>
	<p><b>Slight:</b> Slightly toxic. May cause slight irritation.</p>	<p><b>Moderate:</b> Combustible. Requires moderate heating to ignite. Flash Point 100° F to 200° F.</p> <p><b>Slight:</b> Slightly combustible. Requires strong heating to ignite.</p>	<p><b>Moderate:</b> Unstable, may react with water.</p> <p><b>Slight:</b> May react if heated or mixed with water.</p>	<p>H – Splash Goggles, Gloves, Protective Apron, Vapor Respirator</p> <p>I – Safety Glasses, Gloves, Dust and Vapor Respirator</p>
	<p><b>Minimal:</b> All chemicals have some degree of toxicity.</p>	<p><b>Minimal:</b> Will not burn under normal conditions.</p>	<p><b>Minimal:</b> Normally stable, does not react with water.</p>	<p>J – Splash Goggles, Gloves, Protective Apron, Dust and Vapor Respirator</p> <p>K – Airline Respirator, Gloves, Protective Suit, Boots</p> <p>X – Ask your Supervisor for Special Handling Instructions</p>

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Soil-Tech Inc.

Reason for Issue: