



SDS

GHS Safety Data Sheet

PROFILE Products, LLC

ProMatrix® Engineer Fiber Matrix™ (EFM™)

MSDS Number: CON069

Revision Date: 1/1/14

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

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Product Name: ProMatrix® Engineer Fiber Matrix™ (EFM™)
Revision Date: 1/1/14
MSDS Number: CON069
CAS Number: Not applicable
Product Use: Erosion control and revegetation mulch for hydraulic seeding

Product Description: Green dyed wood fibers, man-made biodegradable fibers, minerals and a proprietary binder mixture.

2 HAZARDS IDENTIFICATION

Route of Entry: Inhalation, skin contact, eye contact

Inhalation: Wood may cause sneezing, irritation, and dryness of the nose and throat. Dust may aggravate pre-existing respiratory conditions.

Skin Contact: Wood dust can cause irritation. Skin absorption is not known to occur.

Eye Contact: Wood dust can irritate the eyes.

Ingestion: No reports of human ingestion.

NFPA: Health = 1, Fire = 1, Reactivity = 0



OSHA Classification: Wood dust is a hazardous substance as defined by the Hazard Communication Standard 29CFR 1910.1200



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3	COMPOSITION/INFORMATION ON INGREDIENTS
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Ingredients:

Cas #	Perc.	Chemical Name
N /A	Proprietary	Hydrocolloidal Based Polysaccharide Tackifier
9000300	Proprietary	Guar Gum

4	FIRST AID MEASURES
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- Inhalation:** Usually not a problem. Remove to fresh air if respiratory irritation develops, and get medical aid promptly if irritation persists. In high dust levels wear dust mask.
- Skin Contact:** Usually not a problem. Wash off with running water if irritation is experienced.
- Eye Contact:** Open eyelids and flush with water.
- Ingestion:** Get medical attention.

5	FIRE FIGHTING MEASURES
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- Flammability:** Combustible product
- Flash Point:** Not applicable
- Flash Point Method:** Not applicable
- Autoignition Temp:** 200-260°C (400-500°F)

Conditions to avoid: In contact with flames or hot surfaces

Flammable- Extinguish with water; same as a wood fire

6	ACCIDENTAL RELEASE MEASURES
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Scoop up product. Wear goggles and respirator if dust is produced in unventilated areas. Wet product will be slippery.

7	HANDLING AND STORAGE
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- Handling Precautions:** Clean up areas where dust settles. Minimize blowdown or other practices that generate high airborne dust concentrations.
- Storage Requirements:** Store in a cool, dry place. Keep away from sources of ignition.



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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: None required for outdoor mixing and application. Use dust collection system for indoor handling operations.

Personal Protective Equip: Eye Protection: Wear goggles when emptying bags and during other operations where there is a risk of dust entering the eyes.
 Gloves: Leather, plastic or rubber gloves could be worn to minimize skin irritation.
 Respirators: When handling methods generate dust at concentrations that exceed occupational exposure limits, wear a NIOSH approved respirator. A fabric respirator or a facepiece respirator with dust cartridges will generally provide adequate protection.
 Footwear: The product is slippery when wet. Wear appropriate footwear.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dyed green wood fibers - Pine & mixed hardwoods	Odor:	Mild wood odor
Physical State:	Wood Fibers		
Spec Grav./Density:	Lighter than water		
Vapor Pressure:	N/A		

10 STABILITY AND REACTIVITY

Stability: Stable product

Conditions to Avoid: Contact with strong acids and oxidizers may generate heat. Product may ignite at temperatures in excess of 200°C (400°F).

Materials to Avoid: Strong acids and oxidizers

Hazardous Polymerization: Will not occur.

11 TOXICOLOGICAL INFORMATION

EFFECTS OF CHRONIC EXPOSURE:

Inhalation: Frequent and repeated exposure to wood dust is associated with an increased risk of developing nasal cancer.
 Skin Contact: Although rare, wood dust may cause dermatitis in sensitized people.

Occupational Exposure Limits:

Wood dusts- All other species: ACGIH (2007): TLV-TWA 1 mg/m³ (Inhalable fraction); A4
 Particulates Not Otherwise Regulated (PNOR): OSHA: PEL-TWA 15 mg/m³ (Total Dust); 5 mg/m³ (Respirable fraction)

Irritancy: Wood dust is a mild irritant
 Sensitization: Some wood dusts may cause allergic skin reactions



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ECOLOGICAL INFORMATION

Guar Gum (CAS# 9000-30-0) is listed as an inert ingredient permitted for use in nonfood use pesticide products by EPA. It is also classified under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as a minimal risk inert substance (List 4A) meaning that as a pesticide, Guar Gum is considered by the EPA to pose little or no risk to humans or the environment. The US Department of Agriculture (USDA) National Organic Program (NOP) also allows the use of Guar Gum in a variety of applications, but primarily as a pesticide in organic production operations. Finally, Guar Gum is listed on the Generally Recognized as Safe (GRAS) list by the Food and Drug Administration (FDA).

48-hr LC₅₀ = >100% for Daphnia magna when runoff generated using ASTM D7101 (2"/hr rainfall rate) was tested according to EPA-821-R-02-012.

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DISPOSAL CONSIDERATIONS

Normally can be disposed of as a wood residue. Ensure disposal is in compliance with local, provincial (state), and federal regulations.

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TRANSPORT INFORMATION

DOT Class: Not regulated #



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REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*Guar gum (9000300 n/a%) TSCA

REGULATORY KEY DESCRIPTIONS

MASS = MA Massachusetts Hazardous Substances List
NRC = Nationally Recognized Carcinogens
OSHAWAC = OSHA workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TXAIR = TX Air Contaminants with Health Effects Screening Level

CERCLA = Superfund clean up substance
CSWHS = Clean water Act Hazardous substances
EHS302 = Extremely Hazardous Substance
EPCRAWPC = EPCRA Water Priority Chemicals
HAP = Hazardous Air Pollutants
NJEHS = NJ Extraordinarily Hazardous Substances
NJHS = NJ Right-to-Know Hazardous Substances
OSHAPSM = OSHA Chemicals Requiring process safety management
SARA313 = SARA 313 Title III Toxic Chemicals

TSCA = Toxic Substances Control Act

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OTHER INFORMATION



Application Guide for Profile® Engineered Fiber Matrix™

Engineered Fiber Matrix is mixed at a rate of 60 pounds per 100 gallons of water

Engineered Fiber Matrix (EFM) has been specially designed to be mixed in a low ratio of water to product. Follow the EFM Loading Chart and Application Guide closely. Not mixing enough EFM will water-down the slurry and compromise coverage during application and the performance of the formulation.

Application / Loading Procedures

- A. Strictly comply with equipment Manufacturer's installation instructions and recommendations.** Use approved hydro-spraying machines with fan-type nozzle (50-degree tip) whenever possible to achieve best soil coverage. Apply from opposing directions to assure 100% soil surface coverage. Slope interruption devices or water diversion techniques are recommended when slope lengths exceed the maximum recommendations as shown in the Slope Application and Slope Interruption Limits tables on the back page of these guidelines.
- B.** To ensure proper application rates, measure and stake area. For maximum performance, apply EFM as follows:¹
 - 1.** Apply fertilizer with specified prescriptive agronomic formulations, seed and **EFM at a rate of 60 pounds per 100 gallons (27 kg/379 liters) of water** over properly prepared surfaces.
 - 2.** See loading chart on the back and confirm loading rates with equipment manufacturer. Do not leave seeded surfaces unprotected, especially if precipitation is imminent.
- C.** Fill 1/3 of mechanically agitated hydroseeder with water. Turn pump on for 15 seconds and purge and pre-wet lines. Turn pump off.
- D.** Turn agitator on, open recirculation valve and load low density materials first (i.e. seed).²
- E.** Continue slowly filling tank with water while loading fiber matrix into tank.
- F.** Consult loading chart on the back to determine the number of bags to be added for desired area and application rate.
- G.** EFM should be completely loaded before water level reaches 75% of the top of tank.
- H.** Add fertilizer as water level approaches the top of the tank.
- I.** Top off with water and mix until all fiber is fully broken apart and hydrated (minimum of 10 minutes — increase mixing time when applying in cold conditions). This is very important to fully activate the bonding additives and to obtain proper viscosity.
- J.** Shut off recirculation valve to minimize potential for air entrainment within the slurry.
- K.** Slow down agitator and start applying with a 50-degree fan tip nozzle.
- L.** Spray in opposing directions for maximum soil coverage.

¹ Best results and more rapid curing are achieved at temperatures exceeding 60°F (15°C). Curing times may be accelerated in high temperature, low humidity, and windy conditions with product applied on dry soils.

² Do not add additional tackifiers or polymers to this pre-mixed formulation.

Loading Chart for Profile's Engineered Fiber Matrix

Tank Size (gal)	# of 50-lb bales	(lb)	Displacement (gal)	2,500 lb/ac		3,000 lb/ac		3,500 lb/ac		4,000 lb/ac	
				Sq ft	Acres	Sq ft	Acres	Sq ft	Acres	Sq ft	Acres
250	3	150	280	2,614	0.060	2,178	0.050	1,867	0.043	1,634	0.038
500	6	300	560	5,227	0.120	4,356	0.100	3,734	0.086	3,267	0.075
750	9	450	840	7,841	0.180	6,534	0.150	5,601	0.129	4,901	0.113
1,000	12	600	1,120	10,454	0.240	8,712	0.200	7,467	0.171	6,534	0.150
1,500	18	900	1,680	15,682	0.360	13,068	0.300	11,201	0.257	9,801	0.225
2,000	24	1,200	2,240	20,909	0.480	17,424	0.400	14,935	0.343	13,068	0.300
2,500	30	1,500	2,800	26,136	0.600	21,780	0.500	18,669	0.429	16,335	0.375
3,000	36	1,800	3,360	31,363	0.720	26,136	0.600	22,402	0.514	19,602	0.450
3,500	42	2,100	3,920	36,590	0.840	30,492	0.700	26,136	0.600	22,869	0.525
4,000	48	2,400	4,480	41,818	0.960	34,848	0.800	29,870	0.686	26,136	0.600

Additional Notes:

- Rough surfaces (rocky terrain, cat tracks, ripped soils, etc.) may require additional product to achieve 100% coverage.
 - Be sure to allow for residual material in tank on subsequent applications.

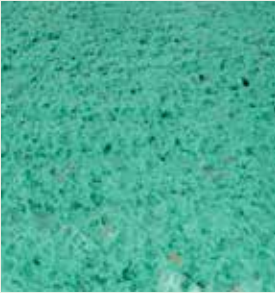


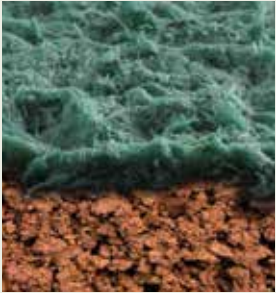




Application Rates		
Slope Condition	English	SI
≤ 4H to 1V	2500 lb/ac	2800 kg/ha
≥ 4H to 1V and ≤ 3H to 1V	3000 lb/ac	3360 kg/ha
≥ 3H to 1V and ≤ 2H to 1V	3500 lb/ac	3920 kg/ha
≥ 2H to 1V and ≤ 1H to 1V ¹	4000 lb/ac	4480 kg/ha
Slope Interruption Limits*		
Product Category	Length (ft)	Length (m)
EFM	50	15

For conversions:
 1 lb = 0.454 kg
 1 ac = 0.41 ha
 lb/ac x 1.12 = kg/ha
 1 kg = 2.20 lb
 1 ha = 2.47 ac

¹EFM not recommended for slopes greater than 1H:1V.

*Listed slope interruption limits are for product applications on a 3H:1V slope. For application on steeper slopes, slope interruption lengths may need to be decreased.

Visual Key for Proper Application

Proper Application	Improper Application	3,000 lb/ac	3,500 lb/ac	4,000 lb/ac
				
		 } 3.4 mm thickness	 } 4.0 mm thickness	 } 4.6 mm thickness



Solutions for your Environment™

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U.S. Patent #'s: 5,741,832; 5,779,782; 5,942,029; 6,158,167; 6,360,478; 7,752,804 and Patents Pending

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