



SDS

GHS Safety Data Sheet

PROFILE Products, LLC

Flexterra® High Performance-Flexible Growth Medium™(HP-FGM™)

MSDS Number: CON062

Revision Date: 1/1/14

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

PROFILE Products, LLC
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BUFFALO GROVE, IL 60089

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Product Name: Flexterra® High Performance-Flexible Growth Medium™(HP-FGM™)
Revision Date: 1/1/14
MSDS Number: CON062
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





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

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

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

4 FIRST AID MEASURES

- 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

- 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

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



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HANDLING AND STORAGE

- 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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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.

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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 | | |

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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.



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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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15	REGULATORY INFORMATION
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COMPONENT / (CAS/PERC) / CODES

*Guar gum (9000300 n/a%) TSCA

REGULATORY KEY DESCRIPTIONS

MASS = MA Massachusetts Hazardous Substances List
NRC = Nationally Recognized Carcinogens
OSHA WAC = 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
OSHA PSM = OSHA Chemicals Requiring process safety management
SARA313 = SARA 313 Title III Toxic Chemicals

TSCA = Toxic Substances Control Act

16	OTHER INFORMATION
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Application Guide for Profile[®] HP-FGM[™] and ET-FGM[™]

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 according to the slope interruption limits table on the back.
- B. To ensure proper application rates, measure and stake area. For maximum performance, apply in a two-step process*:
 1. Apply specified prescriptive agronomic formulations along with 50% of seed with a small amount of HP-FGM[™] or ET-FGM[™] for visual metering.
 2. Mix balance of seed and apply HP-FGM or ET-FGM at a rate of 50 pounds per 125 gallons (see mixing section on the back for details) of water over freshly seeded surfaces. 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 and load low density materials first (i.e. seed).**
- 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. HP-FGM or ET-FGM should be completely loaded before water level reaches 75% of the top of tank.
- H. 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.
- I. Add fertilizer.
- 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.

**Depending on site conditions, HP-FGM or ET-FGM may be applied in a one-step process where all components may be mixed together in single tank loads. Consult with Manufacturer for further details.*

***Do not add tackifiers or polymers.*

Loading Chart for Profile's HP-FGM and ET-FGM

Tank Size (gal)	# of 50-lb bales	(lb)	Displacement (gal)	2,500 lb/acre		3,000 lb/acre		3,500 lb/acre		4,000 lb/acre		4,500 lb/acre	
				Sq ft	Acres	Sq ft	Acres	Sq ft	Acres	Sq ft	Acres	Sq ft	Acres
250	2	100	280	1,742	0.040	1,452	0.033	1,245	0.029	1,089	0.025	968	0.022
500	4	200	560	3,485	0.080	2,904	0.067	2,489	0.057	2,178	0.050	1,936	0.044
750	6	300	840	5,227	0.120	4,356	0.100	3,734	0.086	3,267	0.075	2,904	0.067
1,000	8	400	1,120	6,970	0.160	5,808	0.133	4,978	0.114	4,356	0.100	3,872	0.089
1,500	12	600	1,680	10,454	0.240	8,712	0.200	7,467	0.171	6,534	0.150	5,808	0.133
2,000	16	800	2,240	13,939	0.320	11,616	0.267	9,957	0.229	8,712	0.200	7,744	0.178
2,500	20	1,000	2,800	17,424	0.400	14,520	0.333	12,446	0.286	10,890	0.250	9,680	0.222
3,000	24	1,200	3,360	20,909	0.480	17,424	0.400	14,935	0.343	13,068	0.300	11,616	0.267
3,500	28	1,400	3,920	24,394	0.560	20,328	0.467	17,424	0.400	15,246	0.350	13,552	0.311
4,000	32	1,600	4,480	27,878	0.640	23,232	0.533	19,913	0.457	17,424	0.400	15,488	0.356

Additional Notes:

- For hose applications, 35 lb/100 gal is recommended.
- 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/acre	2800 kg/hectare
> 4H to 1V and ≤ 3H to 1V	3000 lb/acre	3400 kg/hectare
> 3H to 1V and ≤ 2H to 1V	3500 lb/acre	3900 kg/hectare
> 2H to 1V and ≤ 1H to 1V	4000 lb/acre	4500 kg/hectare
> 1H to 1V ¹	4500 lb/acre	5100 kg/hectare
Below ECB or TRM	1500 lb/acre	1700 kg/hectare
As infill for TRM ²	3500 lb/acre	3900 kg/hectare

Slope Interruption Limits*		
Product Category	Length (ft)	Length (m)
HP-FGM	100	30
ET-FGM	125	38

*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.

¹HP-FGM or ET-FGM recommended for slopes greater than 1H:1V.

²Use only approved and tested TRMs to create the GreenArmor System.

Visual Key for Proper Application (Flexterra HP-FGM shown below)

Proper Application	Improper Application	3,000 lb/acre	3,500 lb/acre	4,000 lb/acre



Solutions for your Environment™

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