

EkoFlo

PERMEABLE PAVEMENT BINDER

For more information, visit TechniSoil.com



FEATURES & BENEFITS:

EkoFlo is a permeable pavement binder designed for use with clean, dry pebbles to create stunning pebble walkways, patios, and tree wells. It provides a strong-cross linking bond for residential and commercial foot traffic applications while allowing water transfer into the ground below. Once the ready-to-use binder is mixed evenly with pebbles, the blended material trowels into place easily to form a smooth, beautiful surface. EkoFlo is available in 16-ounce, 1-gallon, and 5-gallon bottles, or as a 50-pound bucket kit with pebbles and binder.

- Cross-linking liquid binder
- Creates beautiful pebble surfaces
- Permeable walkways and patios
- Reduce stormwater runoff
- Ideal for tree well ground cover
- Mix with pebbles & recycled glass
- UV stable with ultra clear finish
- Blended mixture trowels easily
- Easy to install with common tools
- Freeze-Thaw resistant
- Environmentally safe

COVERAGE RATES:

Pebble Size Range:	EkoFlo per 50 lbs of Pebbles:	Coverage Rate:
1/8" - 1/4"	24 ounces	30 ft ² /gallon
1/4" - 3/8"	16 ounces	40 ft ² /gallon
3/8" - 1/2"	12 ounces	50 ft ² /gallon



Material Safety Data Sheet

Issuing Date No data available

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Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name EkoFlo
Recommended Use Bonding agent
Supplier Address

TechniSoil Global, Inc.
5660 Westside Road
Redding, CA 96001 USA
Phone: 877-356-2250
Fax: 866-356-8880
Email: Info@TechniSoil.com

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Irritating to eyes

Irritating to skin

May produce an allergic reaction

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

Appearance Clear

Physical State Viscous liquid, Liquid.

Odor Musty

Potential Health Effects

Principle Routes of Exposure

Eye contact. Skin contact. Inhalation.

Acute Toxicity

Eyes

Irritating to eyes.

Skin

Irritating to skin. Will bond to skin May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Inhalation

No known effect based on information supplied.

Ingestion

No hazard from product as supplied. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects

Avoid repeated exposure. Repeated contact may cause allergic reactions in very susceptible persons.

Aggravated Medical Conditions

Allergies. Skin disorders. Respiratory disorders. Pre-existing eye disorders.

Interactions with Other Chemicals

Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.

Environmental Hazard

See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Supplier Trade Secret	Proprietary	60-100
Supplier Trade Secret	Proprietary	30-60
Supplier Trade Secret	Proprietary	1 - 5
Supplier Trade Secret	Proprietary	1 - 5

4. FIRST AID MEASURES

General Advice	Immediate medical attention is required. If symptoms persist, call a physician.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Do not remove clothing if adhering to skin. If skin has bonded to clothing or other skin NEVER pull the area apart. Allow acetone or warm water to penetrate the bond and gently attempt to move bonded areas without pulling the skin away from bonded area. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician if necessary
Notes to Physician	Treat symptomatically. May cause sensitization of susceptible persons.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not flammable.
Flash Point	Not determined.
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Uniform Fire Code	<ul style="list-style-type: none"> • Toxic: Liquid • Sensitizer: Liquid
Hazardous Combustion Products	Carbon oxides.
Explosion Data	
Sensitivity to Mechanical Impact	No.
Specific Hazards Arising from the Chemical	Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.
Sensitivity to Static Discharge	No.
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.	

NFPA	Health Hazard 2	Flammability 0	Stability 0	Physical and Chemical Hazards -
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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.
Methods for Containment	Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.
Methods for Cleaning Up	Dam up. Cover liquid spill with sand, earth or other noncombustible absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Supplier Trade Secret	TWA: 0.005 ppm	(vacated) S* (vacated) Ceiling: 0.01 ppm (vacated) Ceiling: 0.11 mg/m ³	Ceiling: 0.01 ppm Ceiling: 0.11 mg/m ³
Supplier Trade Secret	STEL: 0.2 mg/m ³ Sn TWA: 0.1 mg/m ³ Sn S*	TWA: 0.1 mg/m ³ Sn (vacated) TWA: 0.1 mg/m ³ Sn (vacated) S*	IDLH: 25 mg/m ³ Sn TWA: 0.1 mg/m ³ except Cyhexatin Sn

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
Engineering Measures	Showers Eyewash stations Ventilation systems
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles. Safety glasses with side-shields. Face-shield.
Skin and Body Protection	Protective gloves.
Respiratory Protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hygiene Measures	When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear.	Odor	Musty.
Odor Threshold	No information available	Physical State	Viscous liquid Liquid
pH	UNKNOWN		
Flash Point	No information available.	Autoignition Temperature	No information available
Decomposition Temperature	No information available	Boiling Point/Range	No information available
Melting Point/Range	No information available		
Flammability Limits in Air	No information available	Explosion Limits	No information available
Water Solubility	Reacts with water	Solubility	No information available
Evaporation Rate	No information available	Vapor Pressure	No data available
Vapor Density	No data available	Partition Coefficient: n-octanol/water	

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	None known.
Conditions to Avoid	None known.
Hazardous Decomposition Products	Carbon oxides.
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

LD50 Oral VALUE	2802.631 mg/kg (rat) estimated
LC50 Inhalation (DUST) VALUE	4.5684 mg/L (mist) (dust) mg/m ³ estimated
Eye Contact	Irritating to eyes.
Skin Contact	Irritating to skin.

Chronic Toxicity

Chronic Toxicity	Avoid repeated exposure. Repeated contact may cause allergic reactions in very susceptible persons.
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Target Organ Effects	Eyes. Respiratory system. Skin.
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12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Supplier Trade Secret		LC50: 1.2-2.76 mg/L (96 h) Brachydanio rerio LC50: 1.2 mg/L (96 h static) Brachydanio rerio		
Supplier Trade Secret		LC50: 2 mg/L (48 h) Oryzias latipes	EC50 = 0.576 mg/L 30 min	

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Dispose of in accordance with local regulations.

California Hazardous Waste Codes 281

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California EHW	California Carc	California Hazardous Waste	California Waste - Part 2
Supplier Trade Secret			Toxic	

14. TRANSPORT INFORMATION

DOT NOT REGULATED

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL Not determined

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Supplier Trade Secret		30-60	1.0

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

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Supplier Trade Secret	X	X	X		X

International Regulations

Mexico - Grade

Moderate risk, Grade 2

Chemical Name	Carcinogen Status	Exposure Limits
Supplier Trade Secret		Mexico: TWA 0.01 ppm Mexico: TWA 0.11 mg/m ³
Supplier Trade Secret		Mexico: TWA 0.1 mg/m ³ Mexico: STEL 0.2 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
D2A Very toxic materials



Chemical Name	NPRI
Supplier Trade Secret	X

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date 20-Sep-2013

Revision Note No information available

General 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