

EkoFlo Permeable Pebble Binder

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TechniSoil Global Inc. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: EkoFlo Permeable Pebble Binder

Recommended use of the chemical and restrictions on use

Identified uses: Polyurethane isocyanate component

COMPANY IDENTIFICATION

TechniSoil Global, Inc.
5660 Westside Road
Redding, CA, USA 96001

Customer Information Number

Toll Free: 877-356-2250

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 800-424-9300
Local Emergency Contact: 800-424-9300

2. HAZARD IDENTIFICATION

Hazard classification

Inhalation Toxicity - Acute Tox. 4

Skin sensitisation - 2

Eye corrosive - 2A

Respiratory sensitizer - 1

Skin sensitizer - 1

Mutagen - 2

Reproductive toxin - 1B

Carcinogenicity - Not Classified

Label elements: Not Classified

Hazard pictograms: Not Classified

Signal word: **Danger**

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Causes skin irritation

May cause an allergic skin reaction

Causes serious eye irritation

Harmful if inhaled

May cause allergy or asthma symptoms or breathing difficulties if inhaled Suspected of causing genetic defects

May damage fertility or the unborn child

Other hazards

Isocyanates may cause skin and respiratory sensitivity in some individuals.

Sensitized individuals may react to very low levels diisocyanates below the PEL. Sensitized people who continue to work with diisocyanates may develop symptoms sooner after each exposure. Limited evidence of possible carcinogenic effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS**Chemical nature:** Polymers, water based. This product is a mixture

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**Description of first aid measures**

Inhalation: May cause severe irritation to upper respiratory tract and lungs, respiratory sensitization, decreased lung capacity. Remove from exposure area to fresh air. Administer oxygen or artificial respiration as needed. Obtain medical attention.

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Skin contact: If direct skin contact with isocyanates occurs, immediately remove contaminated clothing and shoes. Wipe off the isocyanate product from the skin using dry towels or other similar absorbent fabric. If readily available, apply a polyglycol-based cleanser (e.g. Colorimetric Laboratories, Inc. (CLI) D-TAMTM Skin Cleanser) or corn oil. Wash with soap and warm water and pat dry. If a polyglycol-based cleanser is not available, wash with soap and warm water for 15 minutes. If available, use a wipe test pad to verify decontamination is complete (e.g. CLI SWYPETM). Get medical attention if irritation develops. Discard or wash contaminated clothing before reuse. Call a physician if irritation or rash develops.

Eye contact: Rinse opened eye for at least 15 minutes under running water. Remove contact lenses if present and easy to do so, and continue rinsing. If irritation persists contact physician

Ingestion: Do not induce vomiting. If conscious, give 1 to 2 cups of milk or water to drink. Consult a physician at once.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically. Following severe exposure the patient should be kept under medical observation for a least 48 hours.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water spray, CO₂, Foam, Dry chemical

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture: No data available

Hazardous combustion products: Oxides of carbon, oxides of nitrogen, isocyanates, and traces of HCN.

Unusual Fire and Explosion Hazards: Material can splatter above 100°C/212°F. Dried product can burn.

Advice for firefighters

Fire Fighting Procedures: No data available.

Special protective equipment for firefighters:

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Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate all non-essential personnel. Avoid contact with skin. Do not breathe aerosols or vapors.

Environmental precautions: Cover and contain spill with absorbent material. Place waste in open container. Remove to well ventilated area and dilute with ammonia solution (water 90%, concentrated ammonia 8%, detergent 2%). Collect for proper disposal according to local, state, and federal regulations.

Methods and materials for containment and cleaning up: Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not breathe fumes, vapors or mists. Use only with adequate ventilation. Avoid contact with skin or eyes. Immediately report spills or leaks.

Storage stability: Store containers in a dry, well ventilated area. Keep containers tightly closed and prevent moisture contamination. Do not re-seal the container if contamination is suspected. Store between 60oF and 100oF

Storage temperature: Store material at -5°C (23°F) to 30°C (86°F). Keep away from heat, steam, sunlight, sparks and open flame. Store containers tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

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Exposure Limits: No exposure limits available for this product. Excessive exposure to thermal degradation products could result in delayed pulmonary edema in some cases, and on very high exposure, damage to the liver and kidneys.

Exposure controls

Engineering controls: Use local exhaust ventilation to maintain airborne concentrations below the TLV, especially if heating or spraying. Use only in a well ventilated area to keep vapors below exposure limits. Use local exhaust ventilation if necessary.

Individual protection measures

Hand Protection: Protective butyl rubber or nitrile rubber gloves.

Eye Protection: Chemical safety goggles.

Body Protection: Impervious protective work clothing. Launder separately.

Respiratory Protection: Do not inhale vapors. Use NIOSH approved respiratory protection if TLV/PEL is exceeded. Do not enter storage area unless adequately ventilated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Liquid
Physical state	Liquid
Color	Off white/pale-yellowish
Odor	Pungent
Odor Threshold	No data available
pH	No data available
Melting point/range	Not Applicable
Freezing point	Approximately 0°C
Boiling point (760 mmHg)	Approximately 100 °C Water
Flash point	392°F, 200°C
Evaporation Rate (Butyl Acetate = 1)	Not available

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Flammability (solid, gas)	Not available
Lower explosion limit	Not Applicable
Upper explosion limit	Not Applicable
Vapor Pressure	Not available
Relative Vapor Density (air = 1)	Not available
Relative Density (water = 1)	1.6
Water solubility	Not available
Partition coefficient: n- octanol/water	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Dynamic Viscosity	No data available
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available
Percent volatility	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable

Possibility of hazardous reactions: Product will not undergo polymerization.

Conditions to avoid: Keep away from heat, sparks, flame, high temperature

Incompatible materials: Product will react with a wide range of common chemicals. During use of this product in the work environment, protect the product from contamination such as inadvertent contact

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with water, amines, strong bases and alcohols. For example, allowing water inside a container will lead to the generation of carbon dioxide gas and result in the development of excess pressure if the container is tightly re-sealed.

Hazardous decomposition products: Oxides of carbon, oxides of nitrogen, hydrocarbons, isocyanates, and traces of HCN.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity

Irritating and corrosive to mouth, stomach, and digestive tract.

For this family of materials:

Dibutyltin dilaurate
Oral LD50: 45 mg/kg (Rat)
Dermal LD50: 630 mg/kg (Rabbit)
Inhalation LC50: 2 mg/kg (Rat)

Acute dermal toxicity

Irritation, redness, swelling, skin sensitization, rash, scaling, and blistering.

Acute inhalation toxicity

Mucous membrane and respiratory tract irritation, tightness of chest, isocyanate sensitization.

Skin corrosion/irritation

May cause skin irritation

Serious eye damage/eye irritation

Severe irritation, tearing, swelling, and possible damage to cornea.

Sensitization

Skin by Local Lymph Node Assay (rat): Negative

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

No relevant data found.

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Carcinogenicity

None of the components in this material are listed by NTP, OSHA or IARC.

Teratogenicity

No relevant data found.

Reproductive toxicity

No relevant data found.

Mutagenicity

For this family of materials: In vitro genetic toxicity studies were negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Persistence and degradability

Biodegradability: No data

Bioaccumulative potential

Bioaccumulation: No data

13. DISPOSAL CONSIDERATIONS

Disposal methods: Comply with Federal, State and Local regulations concerning health and environment when disposing of materials. Regulations may also apply to empty containers, liners, or rinsate. DO NOT INCINERATE unless incinerator is capable of scrubbing hydrogen fluoride and other acidic combustion products.

14. TRANSPORT INFORMATION

DOT: Not applicable

Classification for SEA transport (IMO-IMDG): Not applicable

15. REGULATORY INFORMATION

EINECS 1987 List

Fluoroalkyl methacrylate is registered by the listing of its constituent monomers.

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United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substance Control Act (TSCA) Chemical Substance Inventory. The base polymer is subject to export notification under Section 12(b) of TSCA.

Other Countries

The fluoropolymer of this product is listed on the chemical inventories of the following country: Canada

State and local regulations may have specific requirements for this product or components of this product; consult specific state and local regulatory requirements for additional information.

16. OTHER INFORMATION

For additional information, refer to the American Conference of Governmental Industrial Hygienists (ACGIH) documentation of TLV's (Threshold Limit Values) for individual components, Fluoropolymers Safe Handling Guide published by The Society of the Plastics Industry, and the DOT Emergency Response Guidebook.

The product is for the industrial use only. We do not guarantee the safety in case the product is used for the other purposes. When using the product for healthcare application or food/feed application, consult us in advance.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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