



MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

<u>TRADE NAME (AS LABELED):</u>	Envirofill®
<u>CHEMICAL NAME/CLASS:</u>	Mixture
<u>PRODUCT USE:</u>	Infill for synthetic / artificial turf
<u>U.N. NUMBER:</u>	None
<u>U.N. DANGEROUS GOODS CLASS/SUBSIDIARY RISK:</u>	Not Regulated
<u>MANUFACTURER'S NAME:</u>	USGreentech, LLC
<u>ADDRESS:</u>	3607 Church Street, Cincinnati, OH 45244
<u>EMERGENCY PHONE:</u>	(800) 548-0402
<u>BUSINESS PHONE:</u>	(800) 548-0402
<u>DATE OF PREPARATION:</u>	February 5, 2010
<u>DATE OF REVISION:</u>	New

2. COMPOSITION and INFORMATION ON INGREDIENTS

Hazardous Ingredients:	CAS #	EC #	WT %	ICSC #	Hazard Symbol; Risk Phrases
Silicon Dioxide	14808-60-7	238-878-4	>98%	0808.	HAZARD CLASSIFICATION: [Xn] HARMFUL RISK PHRASES: R48/20, R40/20
Acrylic Polymers	Proprietary	NA.	<2%	N.E.	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Calcium Carbonate	471-34-1	207-439-9	<.2%	1193	HAZARD CLASSIFICATION: [Xi] IRRITANT RISK PHRASES: R36/37/38
Other ingredients which are less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).					Not applicable.

N.E. = Not Established.

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000.

See Section 15 for full text of Ingredient Risk Phrases and Safety Phrases

3. HAZARD IDENTIFICATION

EU LABELING AND CLASSIFICATION: This product meets the definition of the following hazard class as defined by the European Economic Community Guidelines.

EU CLASSIFICATION: [Xn] Harmful

EU RISK PHRASES: R36/37/38: Irritating to eyes, respiratory system and skin; R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation; R40/20: Harmful: possible risk of irreversible effects through inhalation;

EU SAFETY PHRASES: [S22]: Do not breathe dust; [S:25]: Avoid contact with eyes.



MATERIAL SAFETY DATA SHEET

EMERGENCY OVERVIEW: Product Description: This product consists of silicon Dioxide coated with an acrylic polymer. Although Envirofill® is composed primarily of Silica Sand (SiO₂), and such sand is potentially a source of respirable dust, the sand particles in Envirofill ® are thoroughly encapsulated in a coating which captures all dust and should, under normal circumstances, prevent any normal release of silica dust to the workplace. It is a non-flammable product with no odor. **Health Hazards:** This product may cause mechanical irritation to eyes, skin or respiratory system. Long term exposure to respirable concentrations of respirable crystalline silica above permissible exposure levels may have the potential to cause silicosis and/or lung cancer. **Flammability Hazards:** This product is non-flammable. **Reactivity Hazards:** This product is not reactive. **Environmental Hazards:** Release of the product is not expected to cause adverse effects to the environment, plants and animals. **Emergency Recommendations:** Emergency responders must have personal protective equipment and fire protection appropriate for the situation to which they are responding.

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by inhalation of dust or mechanical contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

INHALATION: Inhalation of dust may irritate the upper respiratory system

CONTACT WITH SKIN or EYES: Skin or eye contact may cause mechanical irritation.

INGESTION: Ingestion of this product may cause gastrointestinal irritation.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms.

ACUTE: Contact with eyes will cause mechanical irritation. Inhalation of dust will irritate the respiratory tract.

CHRONIC: Long term exposure to concentrations of crystalline silica over the permissible exposure levels may have the potential to cause silicosis and/or lung cancer.

TARGET ORGANS: Acute: Eyes, respiratory tract

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)		1	
FLAMMABILITY HAZARD (RED)		0	
REACTIVITY HAZARD (YELLOW)		0	
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8	SEE SECTION 8	
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe * = Chronic hazard

4. FIRST-AID MEASURES

Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.

SKIN EXPOSURE: This product may produce a mechanical irritation. It is not expected to require medical attention.

EYE EXPOSURE: If this product enters the eyes, open contaminated individual's eyes while under gently running water. Use sufficient force to open eyelids. Have contaminated individual "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek medical attention if redness or irritation persists.

INHALATION: This product is not expected to generate dust under normal conditions. If dusts generated by this product are inhaled, remove contaminated individual to fresh air. If individual stops breathing, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: Routine use of this product is not expected to cause any situation which could lead to ingestion. If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

MATERIAL SAFETY DATA SHEET

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not Determined

AUTOIGNITION TEMPERATURE: Not Determined

FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA

FIRE EXTINGUISHING MATERIALS: Use fire extinguishing materials appropriate for surrounding fire.

Water Spray: Yes

Carbon Dioxide: Yes

Foam: Yes

Dry Chemical: Yes

Halon: Yes

Other: Any "C" Class

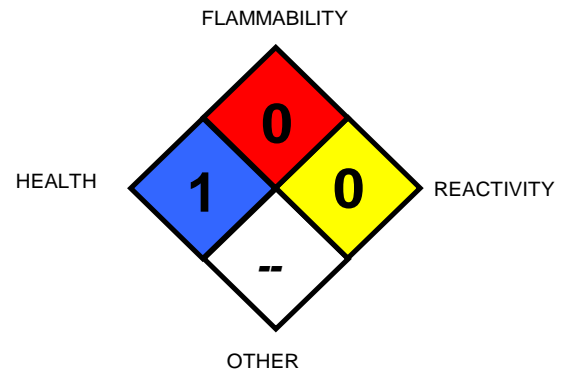
Do not use a direct stream of water which spread the fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

NFPA RATING



6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Vacuum or sweep up material and place all spilled residue in a suitable container. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations, those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

STORAGE AND HANDLING PRACTICES: Store containers in a cool, dry location, and away from direct sunlight. Avoid breakage of bagged material or spills of bulk material. Material does not have a shelf life. Stack bagged material so that it does not have the opportunity to fall. This material is not hazardous under normal storage conditions.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Collect all waste materials and dispose of according to applicable U.S. Federal, State, or local procedures, or the applicable standards of Canada and its Provinces, EU Member States, Australian regulations, and Japanese Standards.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below.

EXPOSURE LIMITS/GUIDELINES:

<u>Chemical Name</u>	<u>CAS#</u>	<u>ACGIH-TLV's</u>	<u>OSHA PEL's</u>	<u>AIHA WELs</u>	<u>Other</u>
Silicon Dioxide	14808-60-7	0.025 mg/m ³	10 mg/m ³ /%SiO ₂ +2	0.08 mg/m ³	NIOSH – REL 0.05 mg/m ³
Acrylic Polymers	Proprietary	NE	NE	NE	NE

NE = Not Established.

NIC = Notice of Intended Change

See Section 16 for Definitions of Terms Used.



MATERIAL SAFETY DATA SHEET

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not needed in normal use and application. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Not needed in normal use and application. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Not needed in normal use and application. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

BULK DENSITY: ~110 lbs/ft³

SPECIFIC GRAVITY: 2.9 – 3.1

SOLUBILITY IN WATER: Negligible

VAPOR PRESSURE: 10mm @ 1730°C

ODOR THRESHOLD: Odorless

APPEARANCE and COLOR: Colored granules

EVAPORATION RATE (n-BuAc=1): NA

MELTING/FREEZING POINT: 1710°C

BOILING POINT: 2230°C

pH: NA

10. STABILITY and REACTIVITY

STABILITY: Stable under conditions of normal temperature and use.

HAZARDOUS DECOMPOSITION PRODUCTS: None

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: None

POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.

CONDITIONS TO AVOID: Extreme temperatures above 870°C

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

The international Agency for Research on Cancer (IARC) has reported there is "limited" evidence that crystalline silica may cause cancer in humans who have silicosis. They have classified it as a Group 2A Potential Carcinogen. Although Envirofill® is composed primarily of Silica Sand (SiO₂), and such sand is potentially a source of respirable dust, the sand particles in Envirofill® are thoroughly encapsulated in a coating which captures all dust and should, under normal circumstances, prevent any normal release of silica dust to the workplace.

SUSPECTED CANCER AGENT: A component of this product is found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be, or suspected to be a cancer-causing agent by these agencies. Silicon Dioxide (Sand) CAS#14808-60-7

IRRITANCY OF PRODUCT: This product can cause mechanical irritation.



MATERIAL SAFETY DATA SHEET

SENSITIZATION TO THE PRODUCT: This product is not expected to cause allergic skin reactions (e.g., rashes, welts) in sensitive individuals.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.

Mutagenicity: The components of this product are not reported to produce mutagenic effects in humans.

Embryotoxicity: The components of this product are not reported to produce embryotoxic effects in humans.

Teratogenicity: The components of this product are not reported to cause teratogenic effects in humans.

Reproductive Toxicity: The components of this product are not reported to cause reproductive effects in humans.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

PERSISTENCE/DEGRADABILITY: No Data

ENVIRONMENTAL STABILITY: No Data

BIOACCUMULATION/ACCUMULATION: There are no data on the product.

There is no data that suggests that this product is toxic to birds, fish, invertebrates, microorganisms or plants.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME: None

HAZARD CLASS NUMBER and DESCRIPTION: Not Regulated

UN IDENTIFICATION NUMBER: None

PACKING GROUP: None

DOT LABEL(S) REQUIRED: None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004): None

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is not considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

MATERIAL SAFETY DATA SHEET

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, and are listed as follows:

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): A component of this product is on the Proposition 65 Lists. Silicon Dioxide CAS#14808-60-7.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are excepted from listing.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: D-2A



EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION: This product meets the definition of the following hazard class as defined by the European Economic Community Guidelines.

EU CLASSIFICATION: [Xn] Harmful

EU RISK PHRASES: R36/37/38: Irritating to eyes, respiratory system and skin; R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation; R40/20: Harmful: possible risk of irreversible effects through inhalation;

EU SAFETY PHRASES: [S22]: Do not breathe dust; [S:25]: Avoid contact with eyes



AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.



MATERIAL SAFETY DATA SHEET

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

- Asia-Pac: Listed
- Australian Inventory of Chemical Substances (AICS): Listed
- Korean Existing Chemicals List (ECL): Listed
- Japanese Existing National Inventory of Chemical Substances (ENCS): Listed
- Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed
- Swiss Giftlist List of Toxic Substances: Listed
- U.S. TSCA: Listed

16. OTHER INFORMATION

PREPARED BY: Paul Eigbrett

MSDS Authoring Services

DATE OF PRINTING: February 10, 2010

Although the information set forth herein is presented in good faith and believed to be correct as of the date of issuance, it has been furnished by our suppliers; consequently, USGreentech, LLC makes no representations or warranties, express or implied, with respect to information herein presented. The information set forth herein is supplied upon the condition that the persons receiving same will make their own determination as to suitability for their purposes prior to use and relates only to the specific product described and not to such product in combination with any other product. In no event will USGreentech, LLC be responsible for damages of any nature resulting from the use of or reliance upon this information.