



Material Safety Data Sheet

EnviroSand

1. Product and company identification

| | |
|------------------------------|--|
| Product name | : EnviroSand |
| Material uses | : Construction material. |
| Supplier/Manufacturer | : Envirobond 1530 Drew Rd. Suite 17 Mississauga, ON, Canada, L5S 1W8 Phone: 1-8666-ENVIRO/1-866-636-8476/Int: 1-416-628-3704 Fax: 1-416-628-3709 Email: msds@envirobond.com |
| MSDS authored by | : KMK Regulatory Services Inc. |
| In case of emergency | : Not applicable. |

2. Hazards identification

Emergency overview

| | |
|-------------------------------|--|
| Physical state | : Solid. [Fine granular.] |
| Color | : White. |
| Odor | : Musty. |
| Signal word | : WARNING! |
| Hazard statements | : CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER. |
| Precautionary measures | : Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Use personal protective equipment as required. Wash thoroughly after handling. |

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Routes of entry : Not available.

Potential acute health effects

| | |
|-------------------|---|
| Inhalation | : No known significant effects or critical hazards. |
| Ingestion | : No known significant effects or critical hazards. |
| Skin | : Irritating to skin. |
| Eyes | : Irritating to eyes. |

Potential chronic health effects

| | |
|------------------------------|---|
| Chronic effects | : Contains material that may cause target organ damage, based on animal data. |
| Carcinogenicity | : Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. |
| Mutagenicity | : No known significant effects or critical hazards. |
| Teratogenicity | : No known significant effects or critical hazards. |
| Developmental effects | : No known significant effects or critical hazards. |
| Fertility effects | : No known significant effects or critical hazards. |
| Target organs | : Contains material which causes damage to the following organs: lungs, upper respiratory tract, eye, lens or cornea. |

2. Hazards identification

Over-exposure signs/symptoms

- Inhalation** : No specific data.
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness

- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

| Name | CAS number | % |
|-------------------|------------|----------|
| Quartz | 14808-60-7 | 60 - 100 |
| Calcium hydroxide | 1305-62-0 | 1 - 5 |

Canada

| Name | CAS number | % |
|-------------------|------------|----------|
| Quartz | 14808-60-7 | 60 - 100 |
| Calcium hydroxide | 1305-62-0 | 1 - 5 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
metal oxide/oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill : Move bags from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move bags from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original bag or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty bags retain product residue and can be hazardous. Do not reuse bag.

Storage : Store in accordance with local regulations. Store in original bag protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep bag tightly closed and sealed until ready for use. Bags that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled bags. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

| Ingredient | Exposure limits |
|-------------------|---|
| Quartz | NIOSH REL (United States, 6/2009). TWA: 0.05 mg/m ³ 10 hour(s). Form: Respirable dust OSHA PEL 1989 (United States, 3/1989). TWA: 0.1 mg/m ³ , (as quartz) 8 hour(s). Form: Respirable dust ACGIH TLV (United States, 2/2010). TWA: 0.025 mg/m ³ 8 hour(s). Form: Respirable fraction |
| Calcium hydroxide | OSHA PEL (United States, 6/2010). TWA: 5 mg/m ³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m ³ 8 hour(s). Form: Total dust ACGIH TLV (United States, 2/2010). TWA: 5 mg/m ³ 8 hour(s). NIOSH REL (United States, 6/2009). TWA: 5 mg/m ³ 10 hour(s). OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hour(s). |

Canada

| Occupational exposure limits | | TWA (8 hours) | | | STEL (15 mins) | | | Ceiling | | | |
|------------------------------|-----------------|---------------|-------------------|-------|----------------|-------------------|-------|---------|-------------------|-------|-----------|
| Ingredient | List name | ppm | mg/m ³ | Other | ppm | mg/m ³ | Other | ppm | mg/m ³ | Other | Notations |
| Quartz | US ACGIH 2/2010 | - | 0.025 | - | - | - | - | - | - | - | [a] |
| | AB 4/2009 | - | 0.025 | - | - | - | - | - | - | - | [b] |
| | BC 9/2010 | - | 0.025 | - | - | - | - | - | - | - | [c] |
| | ON 7/2010 | - | 0.1 | - | - | - | - | - | - | - | [a] |
| Calcium hydroxide | QC 6/2008 | - | 0.1 | - | - | - | - | - | - | - | [d] |
| | US ACGIH 2/2010 | - | 5 | - | - | - | - | - | - | - | |
| | AB 4/2009 | - | 5 | - | - | - | - | - | - | - | [3] |
| | BC 9/2010 | - | 5 | - | - | - | - | - | - | - | |
| | ON 7/2010 | - | 5 | - | - | - | - | - | - | - | |
| | QC 6/2008 | - | 5 | - | - | - | - | - | - | - | |

[3]Skin sensitization

Form: [a]Respirable fraction [b]Respirable particulate. [c]Respirable [d]Respirable dust

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory

: Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state : Solid. [Fine granular.]

Flash point : [Product does not sustain combustion.]

Burning time : Not available.

Burning rate : Not available.

Auto-ignition temperature : Not available.

Flammable limits : Not available.

Color : White.

Odor : Musty.

Taste : Not available.

Molecular weight : Not applicable.

Molecular formula : Not applicable.

pH : <11.5 [Conc. (% w/w): 1%]

Boiling/condensation point : Not available.

Melting/freezing point : Weighted average: 1674.23°C (3045.6°F)

Critical temperature : Not available.

Relative density : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Volatility : Not available.

Odor threshold : Not available.

Evaporation rate : Not available.

SADT : Not available.

Viscosity : Not available.

Ionicity (in water) : Not available.

Dispersibility properties : Not available.

Solubility : Not available.

Physical/chemical properties comments : Not available.

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and acids.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------|---------|------------|----------|
| Calcium hydroxide | LD50 Oral | Rat | 7340 mg/kg | - |

Chronic toxicity

There are no data available.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|------------------------|---------|-------|---------------|-------------|
| Calcium hydroxide | Eyes - Severe irritant | Rabbit | - | 10 milligrams | - |

Sensitizer

Skin : There are no data available.

Respiratory : There are no data available.

Carcinogenicity

Classification

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|-------------------------|-------|------|-----|-------|---------|------|
| Quartz | A2 | 2A | - | + | Proven. | - |

Mutagenicity

There are no data available.

Teratogenicity

There are no data available.

Reproductive toxicity

There are no data available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|-------------------------------------|--|----------|
| Calcium hydroxide | Acute LC50 33884.4 ug/L Fresh water | Fish - Clarias gariepinus - Fingerling | 96 hours |

Persistence/degradability

There are no data available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty bags or liners may retain some product residues. This material and its bag must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|---------------------------|----------------|----------------------|---------|-----|-------|------------------------|
| DOT Classification | Not regulated. | - | - | - | | - |
| TDG Classification | Not regulated. | - | - | - | | - |
| IMDG Class | Not regulated. | - | - | - | | - |
| IATA-DGR Class | Not regulated. | - | - | - | | - |

PG* : Packing group

Exemption to the above classification may apply.

AERG : Not applicable.

15. Regulatory information

United States

HCS Classification : Irritating material
Carcinogen
Target organ effects

U.S. Federal regulations : **TSCA 8(a) IUR Exempt/Partial exemption:** Not determined

United States inventory (TSCA 8b): Not determined.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Quartz; Calcium hydroxide

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Quartz: Immediate (acute) health hazard, Delayed (chronic) health hazard; Calcium hydroxide: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

State regulations

Massachusetts : The following components are listed: Quartz; Calcium hydroxide

New York : None of the components are listed.

New Jersey : The following components are listed: Quartz; Calcium hydroxide

Pennsylvania : The following components are listed: Quartz; Calcium hydroxide

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|----------------------------|--------|--------------|---------------------------|---------------------------------|
| Silica crystalline, quartz | Yes. | No. | No. | No. |

15. Regulatory information

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

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

16. Other information

Label requirements : CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Hazardous Material Information System (U.S.A.) : **Health** : 2 * **Flammability** : 0 **Physical hazards** : 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) : **Health** : 2 **Flammability** : 0 **Instability** : 0

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue mm/dd/yyyy : 10/14/2011

Date of previous issue : 10/01/2008

Version : 3

Revised Section(s) : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Dr. Luc Séguin, PhD chemist, 25 years as a professional in regulatory compliance



Global - Multilingual authoring services for all regulatory documents



Optimizing your company's GHS deployment