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Date: May 24, 2016 Rev: 1

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Section 1: Product Identification

Product Type: construction aggregate

Product Names
Recycled Concrete

This product is crushed concrete, with less than 5% bituminous.

Section 2: Hazard Identification

The most immediate and likely hazards are burns from dust in the eye. When the product is exposed to water, it will leach an alkaline solution, which can cause skin irritation. Dust from the product is irritating to breathe. Prolonged overexposure to dust from the product is harmful to breathe, because it will contain crystalline silica.



Applicable hazard statement based on concrete content

Danger. Causes serious eye damage. Causes skin irritation



Applicable hazard statement (based on crystalline silica content)

Danger: Crystalline silica may cause cancer when inhaled. Crystalline silica causes damage to lungs through prolonged or repeated exposure from inhaling dust.

This product has been evaluated according to GHS and 29CFR1910.1200, Appendix A. Because it may contain crystalline silica (quartz), it is categorized in Health Hazard Carcinogen Category 1A and Specific Target Organ Toxicity (Repeated Exposure) Hazard Category 1. It is categorized as a Health Hazard (serious eye damage/eye irritation - Category 1 and skin irritation – Category 2) because it may have a pH above 11.5.

Applicable hazard statements:

May cause cancer from inhaling dust.

Causes damage to respiratory system (silicosis) through prolonged or repeated exposure to inhaled dust.

Applicable Precautionary Statements

Based on crystalline silica content:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dusts

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Wear eye protection

If exposed or concerned, or if you feel unwell: Get medical advice.

Store locked up.

Dispose of contents in accord with local regulations

Based on cement content:

Wear skin and eye protection (water resistant protective gloves. Goggles recommended to prevent any dust in eyes).

Wash any exposed skin thoroughly after handling material

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor if any eye irritation or discomfort develops

IF ON SKIN: wash with plenty of water. If skin irritation occurs, get medical attention.

Section 3: Hazardous Ingredients/Composition

Ingredient	Typical Percentage	CAS #
Recycled concrete.....	100%	none
Silica sand (as quartz).....	varies	14808-60-7
Calcium hydroxide.....	varies	1305-62-0

Concrete is made from cement, silica sand (quartz), and gravel or rock. The cement in this product has chemically reacted with water to form concrete (calcium-aluminum-silicate compounds). The product may leach calcium hydroxide, a component of the cured concrete.

Material may contain a small amount of recycled asphalt concrete.

Section 4: First Aid Measures

Inhalation:

If irritation or coughing develops, move to fresh air.

Eye contact:

Immediately rinse eyes: hold eyelids apart and flush eyes with plenty of water. At least fifteen minutes of flushing is recommended. Get prompt medical attention for any discomfort or irritation.

Skin Contact:

Promptly wash off with plenty of soap and water. Get medical attention for any burns or persistent rashes.

Ingestion:

Swallowing harmful amounts is unlikely. If swallowed, check with the Poison Control Center or a doctor. Do not induce vomiting unless directed to do so by medical personnel.

Symptoms of overexposure:

Inhalation: Breathing the dust may cause coughing, wheezing, sore throat. Repeated exposure to the dust can cause a runny nose, chronic coughing and impaired lung function. Long term exposure to respirable crystalline silica in the dust can cause silicosis (lung scarring) and lung cancer.

Eye contact: eye irritation from the mechanical effect. Eye irritation, burning from calcium hydroxide.

Skin Contact: Can cause skin irritation and can dry the skin. Because calcium hydroxide can leach out of the recycled material, contact with damp skin can cause irritation or burns, which may not be felt immediately.

Note to physician: Treat according to symptoms. No known specific antidote.

Section 5: Fire Fighting Measures

Fire extinguishing media: Appropriate for surrounding materials. Product is not flammable.

Special fire fighting procedures: none

Unusual fire and explosion hazards: None

Hazardous combustion products: None expected.

Section 6: Accidental Release Measures

Contain and clean up. Avoid creating dust.

Section 7: Handling and Storage

Avoid creating dust.

Wash hands after use.

Do not eat, drink, or use tobacco products when handling any chemical products.

Storage: No special precautions required.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:

	OSHA PEL	OSHA 1989 PEL*	ACGIH TLV	NIOSH REL
Crystalline silica (quartz)	10 mg/m ³ (%silica+2)	0.1 mg/m ³ (respirable)	0.025 mg/m ³ (respirable)	0.05 mg/m ³
Concrete (hardened)	15 mg/m ³ (total) 5 mg/m ³ (respirable)	15 mg/m ³ (total) 5 mg/m ³ (respirable)	10 mg/m ³ (inhalable) 3 mg/m ³ (respirable)	None
Calcium hydroxide	15 mg/m ³ (total) 5 mg/m ³ (respirable)	5 mg/m ³	5 mg/m ³	5 mg/m ³

*For states that adopted the 1989 PEL revisions (Minnesota, Oregon, Washington)

**Hardened concrete exposure limits are for particulates not otherwise regulated (OSHA, NIOSH) or for particles (insoluble or poorly soluble) not otherwise specified.

Engineering Controls:

Avoid creating dust. Water can be used as a dust suppressant.
 Local exhaust ventilation is usually not required.

Personal protective equipment

Respiratory protection: For protection against irritation from dust or up to ten times the recommended exposure limits, use a NIOSH-approved N-95 filtering facepiece or a half mask respirator equipped with N-95 filters. A more protective respirator (e.g., P100 filters or full face respirator) may be substituted.

Skin protection: Avoid any skin contact. Wear any water-impermeable gloves such as PVC gloves, particularly for prolonged contact. Wear boots high enough to prevent any concrete dust from getting into them. Promptly wash off of skin and remove contaminated clothing.

Eye protection: Safety glasses with side shields. If used in dusty or windy conditions, goggles are recommended.

Section 9: Physical and Chemical Properties

Appearance and odor: Light brown or gray granular solid

Flash point: noncombustible.

Specific gravity: 2.62 - 2.74 SSD

Flammable limits: N/A

Melting Point: >2700°F

Solubility in water: negligible.

Evaporation Rate: Does not evaporate.

pH: 9-12

Section 10: Stability and Reactivity

Stability: stable

Conditions to avoid: none known.

Incompatibility: Avoid strong oxidizers, strong acids. Leachate containing calcium hydroxide can react with nitro-organic compounds to form explosive salts, and can react explosively with maleic anhydride. Calcium hydroxide can attack metals in the presence of water, forming hydrogen gas (flammable/explosive).

Hazardous polymerization: will not occur

Hazardous decomposition products: Silica will dissolve in hydrofluoric acid and produce a corrosive gas - silicon tetrafluoride. Abrasion can create silica-containing respirable dusts.

Section 11: Toxicological Information

Not considered acutely toxic.

Can damage the eyes, skin, and respiratory system.

Recycled concrete can leach calcium hydroxide. Calcium hydroxide is categorized as Health Hazard Serious Eye Damage/Eye Irritation Category 1 and Serious Skin Category 1, because it forms a strong alkaline solution in water.

Portland cement, used in formulating concrete, may contain trace amounts of hexavalent chromium. Hexavalent chromium can cause allergic contact dermatitis.

Respirable crystalline silica is categorized as a Health Hazard Carcinogen Category 1A (known to have carcinogenic potential for humans) and a Health Hazard Specific Target Organ Toxicity – Repeated Exposure Category 1. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

Crystalline silica is listed as carcinogenic according to IARC. ACGIH classified crystalline silica as a suspected human carcinogen.

Section 12: Ecological Information

Product has not been tested but is expected to have very low acute toxicity.

Ecotoxicity: .

Not considered hazardous to the ozone layer. Can increase alkalinity of water, but not considered environmentally damaging.

Persistence and degradability: Not likely to biodegrade

Mobility in soil: not mobile.

Bioaccumulation: Not likely to bioaccumulate

Section 13: Disposal Considerations

As provided, not a RCRA-regulated waste.

Dispose of in accordance with federal, state, and local regulations.

Section 14: Transportation

Not a DOT-regulated hazardous material. Not classified as dangerous goods for DOT, IATA, IMDG, TDG

Section 15: Regulatory Information

This product may contain 0.01% or more of crystalline silica, regulated under California Proposition 65 as a chemical known to the state of California to cause cancer or reproductive effects. It is on the New Jersey Right to Know Hazardous Substance List.

This product does not contain any hazardous air pollutants, nor any chemicals regulated under:

CERCLA
SARA 311/312

SARA 302 EHS
SARA 313

Section 16: Other Information

HMIS® Rating: Health: 0* Fire: 0 Reactivity: 0
HMIS® is a registered trademark of the National Paint and Coatings Association

NFPA 704 Rating: Health: 0 Fire: 0 Reactivity: 0
NFPA rating, from the National Fire Protection Association, is for emergency response

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