

Material Safety Data Sheet

Ecobust

1. Product and company identification

Product name	: Ecobust
Product description	: Expansive Mortar.
Material uses	: For controlled demolition, reinforced concrete cutting, rock breaking, quarrying, stone dimension, mining, excavating and so on.
Code	: 25222000
Supplier/Manufacturer	: Ecobust Distribution International Inc. 600 – 1285 West Broadway Vancouver, BC V6H3X8 Tel: 888-509-2420 Toll Free: 888-509-2420 Fax: 888-347-7104 Email: sales@ecobust.ca Web site: www.ecobust.ca
MSDS authored by	: KMK Regulatory Services Inc.
In case of emergency	: 888-509-2420 9am to 5pm M-F Pacific Standard Emergency email : Jason@ecobust.ca

2. Hazards identification

Emergency overview

Physical state	: Solid. [Powder.]
Color	: Gray.
Odor	: Odorless.
Signal word	: WARNING!
Hazard statements	: CAUSES EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. Wear safety glasses, rubber gloves and dust mask.
Precautionary measures	: Avoid breathing dust. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
<u>Potential acute health effects</u>	
Inhalation	: Slightly irritating to the respiratory system.
Ingestion	: No known significant effects or critical hazards.
Skin	: Irritating to skin.
Eyes	: Irritating to eyes.
<u>Potential chronic health effects</u>	
Chronic effects	: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity	: No known significant effects or critical hazards.
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.

2. Hazards identification

Fertility effects : No known significant effects or critical hazards.

Target organs : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No known significant effects or critical hazards.

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 overexposure : None known.

See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
Calcium hydroxide	1305-62-0	60 - 100
Silicon dioxide	7631-86-9	5 - 10
Aluminum Oxide	1344-28-1	1 - 5
Diiron trioxide	1309-37-1	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. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. Get medical attention if symptoms occur.

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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 dry chemical powder.

Not suitable : Do not use water jet or water-based fire extinguishers.

Special exposure hazards : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

5. Fire-fighting measures

- 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. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container.
- Large spill** : Move containers from spill area. Approach release from upwind. Avoid creating dusty conditions and prevent wind dispersal. 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. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

8. Exposure controls/personal protection

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			
<u>Ingredient</u>	<u>List name</u>	<u>ppm</u>	<u>mg/m³</u>	<u>Other</u>	<u>ppm</u>	<u>mg/m³</u>	<u>Other</u>	<u>ppm</u>	<u>mg/m³</u>	<u>Other</u>	<u>Notations</u>
Calcium hydroxide	US ACGIH 1/2011	-	5	-	-	-	-	-	-	-	
	AB 4/2009	-	5	-	-	-	-	-	-	-	[3]
	BC 9/2011	-	5	-	-	-	-	-	-	-	
	ON 7/2010	-	5	-	-	-	-	-	-	-	
	QC 9/2011	-	5	-	-	-	-	-	-	-	
Aluminum Oxide	US ACGIH 1/2011	-	1	-	-	-	-	-	-	-	[a]
	AB 4/2009	-	10	-	-	-	-	-	-	-	
	BC 9/2011	-	1	-	-	-	-	-	-	-	[b]
	ON 7/2010	-	1	-	-	-	-	-	-	-	[a]
Aluminum Oxide, Al	QC 9/2011	-	10	-	-	-	-	-	-	-	[c]
	US ACGIH 1/2011	-	5	-	-	-	-	-	-	-	[a]
Diiron trioxide	AB 4/2009	-	5	-	-	-	-	-	-	-	[b]
	BC 9/2011	-	5	-	-	-	-	-	-	-	[d]
Diiron trioxide, Fe		-	5	-	-	10	-	-	-	-	[e]
		-	3	-	-	-	-	-	-	-	[f]
		-	10	-	-	-	-	-	-	-	[c]
Diiron trioxide	ON 7/2010	-	5	-	-	-	-	-	-	-	[a]
Diiron trioxide, Fe	QC 9/2011	-	5	-	-	-	-	-	-	-	[g]

8. Exposure controls/personal protection

[3]Skin sensitization

Form: [a]Respirable fraction [b]Respirable. [c]Total dust [d]Dust [e]Fume [f]Respirable dust [g]Dust and fumes

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : None required.

Engineering measures : Use only with adequate ventilation. 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 properly fitted dust mask.

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. Recommended: Rubber gloves.

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. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: Dust goggles.

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. Recommended: Overalls buttoned to the neck and wrist.

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. [Powder.]

Flash point : Not available.

Burning time : Not available.

Burning rate : Not available.

Auto-ignition temperature : Not available.

Flammable limits : Not available.

Color : Gray.

Odor : Odorless.

Taste : Not available.

Molecular weight : Not applicable.

Molecular formula : Not applicable.

pH : 11.3 [Conc. (% w/w): 1%]

Boiling/condensation point : 1182°C (2159.6°F)

Melting/freezing point : Not available.

Critical temperature : Not available.

Relative density : 3

Vapor pressure : 0 kPa (0 mm Hg) [20°C]

9. Physical and chemical properties

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	: Very slightly soluble in the following materials: cold water and hot water.
Physical/chemical properties comments	: Not available.

10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: Prevent dust accumulation.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials, acids and moisture.
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 is no data available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Calcium hydroxide	Eyes - Severe irritant	Rabbit	-	10 mg	-
Silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25 mg	-

Sensitizer

Skin	: There is no data available.
Respiratory	: There is no data available.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Silicon dioxide	-	3	-	-	-	-
Aluminum Oxide	A4	-	-	-	-	-
Diiron trioxide	A4	3	-	-	-	-

Mutagenicity

There is no data available.

Teratogenicity

There is no data available.

11. Toxicological information

Reproductive toxicity

There is 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 is 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. Significant quantities of waste product residues should not be disposed of via the foul sewer. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

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
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

Canada

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

Canadian lists

Canadian NPRI : The following components are listed: Aluminum Oxide

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

15. Regulatory information

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. MAY CAUSE RESPIRATORY TRACT IRRITATION.
Wear safety glasses, rubber gloves and dust mask.

Hazardous Material Information System (U.S.A.) : **Health** : 1 **Flammability** : 1 **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** : 1 **Flammability** : 1 **Instability** : 0

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Canada

WHMIS (Canada) :



History

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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.