



SAFETY DATA SHEET

Section 1: Identification

1.1 Product identifier:

Recycled Granular

Other means of identification:

- Granular A
- Granular A Recycle
- Granular B
- Granular B Recycle
- RCA + RAP

1.2 Recommended use and restrictions on use:

Identified uses:

Road surfacing, road base, road sub-base, backfill material.

Restrictions on use:

None known.

1.3 Supplier identifier:

Dufferin Construction Company
A Division of CRH Canada Group Inc.
585 Michigan Drive,
Suite 1 Oakville,
Ontario L6L 0G1
905-842-2741
Toll Free 1-866-322-2003

CRH Canada Group Inc.
2300 Steeles Ave. W., 4th Floor
Concord, ON, L4K 5X6
Canada
Information Telephone Number: 905-761-7100

1.4 Emergency telephone number:

In Canada: 1-613-996-6666 CANUTEC (Call Collect or *666 Cellular) 24-hours
In USA: 800-451-8346 3E COMPANY 24-hours

Section 2: Hazards Identification

2.1 Classification:

Carcinogenicity (inhalation) Cat. 1; H350

Specific Target Organ Toxicity, Repeated Exposure (inhalation), Cat. 1; H372

2.2 Label elements:



Danger.

May cause cancer if inhaled.

Causes damage to lungs through prolonged or repeated exposure if inhaled.

Prevention

Obtain special instructions before use.

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

Do not breathe dusts.

Wash hands and exposed skin thoroughly after handling.

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

Wear protective eye protection, face protection, protective gloves, protective clothing.

Response

IF exposed or concerned: Get medical attention.

Storage

Store locked up.

Disposal

Recycle and or dispose of contents and containers in accordance with local, regional, national and international regulations.

2.3 Other hazards:

Particulates may be abrasive to skin and eyes.



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Section 3: Composition/Information on Ingredients

<u>Chemical Name</u>	<u>Common name / Other identifiers</u>	<u>CAS No.</u>	<u>Wt.%</u>	<u>GHS Classification</u>
Calcium carbonate	Limestone	1317-65-3	<15	Not classified
Recycled Asphalt Product	Asphalt	8052-42-4	< 30	Not classified
Crystalline silica, Quartz	Silicon dioxide	14808-60-7	>1	Carc. 1; H350 STOT RE1; H372

Other composition information :

Recycled granular from crushed asphalt, crushed concrete, limestone, granite, sand and gravel contain varying quantities of quartz (crystalline silica). Asphalt is a complex combination of high molecular weight organic compounds and small amounts of various metals such as iron, nickel, and vanadium. Aggregate may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain respirable crystalline silica (particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of respirable crystalline silica (quartz) may cause lung cancer according to IARC and NTP; ACGIH® states that it is a suspected cause of cancer. Other forms of Crystalline Silica (e.g., tridymite and cristobalite) may also be present or formed under certain industrial processes.

Section 4: First-Aid Measures

4.1 Description of first-aid measures:

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if you feel unwell or are concerned.

Eye Contact: Rinse eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists: Get medical attention.

Skin Contact: Wash with plenty of water and mild soap. If skin irritation occurs or if you feel unwell: Get medical attention.

Ingestion: Rinse mouth. Get medical attention if you feel unwell or are concerned.

4.2 Most important symptoms and effects, both acute and delayed:

Inhalation: High concentrations of airborne dusts are irritating to the upper respiratory tract with symptoms such as coughing, sneezing and shortness of breath. Long-term inhalation exposure to dusts containing respirable size crystalline silica can cause silicosis and lung cancer.

Eye Contact: Dust particles can cause mechanical abrasion. Symptoms include irritation and redness of the eyes.

Skin Contact: Dusts particles may be abrasive to skin.

Ingestion: Swallowing aggregate may cause gastro-intestinal discomfort.

4.3 Immediate medical attention and special treatment needed:

None known

Section 5: Fire-fighting Measures

5.1 Extinguishing media:

Use extinguishing media appropriate to the surrounding fire conditions. Aggregates are not flammable or combustible.

Unsuitable extinguishing media: none known

5.2 Specific hazards arising from the product:

Product is not flammable or combustible.

5.3 Special protective equipment and precautions for firefighters:

As for any fire, evacuate the area and fight the fire from a safe distance.



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Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear adequate personal protective equipment, including an appropriate respirator as indicated in Section 8. Isolate spill area, preventing entry by unauthorized persons. Do not breathe dusts.

6.2 Environmental precautions:

Avoid releases to the environment and prevent material from entering sewers, natural waterways or storm water management systems.

6.3 Methods and material for containment and cleaning up:

Avoid dust generation and prevent wind dispersal. Do not dry sweep or blow with compressed air. Wetting of the spilled material may reduce airborne dust during clean-up. Scoop up or vacuum dust with equipment fitted with a HEPA filter and place in a closed, labelled container. Small spills may be picked up with a damp mop.

6.4 Additional Information:

See Section 8 for information on selection of personal protective equipment.
See Section 13 for information on disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid raising dust in the workplace air.
Do not eat, drink or smoke when using this product.
Wash hands and exposed skin thoroughly after handling. Wash with plenty of water and mild soap.
Prevent eye contact: Wear protective gloves, protective clothing and eye protection or face protection.

7.2 Conditions for safe storage:

Store in a manner which minimizes the generation of airborne dust.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Occupational Exposure Limits: Consult local authorities for acceptable exposure limits.

Ingredient	ACGIH® TLV®	U.S. OSHA PEL	Ontario (Canada) TWA
Limestone	Not available	15 mg/m ³ (total dust) 5 mg/m ³ (respirable)	Not available
Asphalt (fume)	0.5 mg/m ³	Not available	Refer to ACGIH® TLV®
Crystalline silica (Quartz)	0.025 mg/m ³ (respirable)	quartz (total dust): 30 mg/m ³ / (%SiO ₂ + 2) quartz (respirable): 10 mg/m ³ / (%SiO ₂ + 2)	0.1 mg/m ³ (respirable) Designated Substance
Particles Not Otherwise Specified (PNOS)	10 mg/m ³ (inhalable); 3 mg/m ³ (respirable fraction)	15 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)	10 mg/m ³ (inhalable); 3 mg/m ³ (respirable fraction)

8.2 Exposure controls:

Engineering Controls: Handle product in a well-ventilated area. If airborne particulates are generated, monitor dust concentrations in air and provide local exhaust ventilation when any exposure guideline is exceeded.
Ensure regular cleaning of equipment, work area and clothing.

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection. Have equipment available for use in emergencies such as spills.



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8.3 Individual Protection Measures:

Eye/Face Protection: Wear approved safety glasses with side-shields or chemical safety goggles. Wear a face-shield or full-face respirator when needed to prevent exposure to airborne dusts.

Skin Protection: Wear heavy duty gloves to protect hands from abrasion. Evaluate resistance under conditions of use and maintain protective clothing carefully. Contact safety supplier for specifications.

Respiratory Protection: When dust concentrations in air exceed the occupational exposure guidelines, always wear an approved respirator. Consult with respirator manufacturer to determine respirator selection, use and limitations.

A respiratory protection program that meets the regulatory requirement, such as OSHA's 29 CFR 1910.134, ANSI Z88.2 or Canadian Standards Association (CSA) Standard Z94.4, must be followed whenever workplace conditions warrant a respirator's use.

Other Protection: Have adequate washing facilities and eyewash fountain readily available in the work area.

Do not eat, drink or smoke where this material is handled, stored and processed. Wash hands thoroughly before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance:	Solid; rock or particulate
Odour:	Odourless
Odour threshold:	Not applicable
pH:	Not applicable
Melting point/freezing point:	Not applicable
Initial boiling point and boiling range:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	Not flammable or combustible
Upper/lower flammability or explosive limits:	Not applicable
Vapour pressure:	Not applicable
Vapour density:	Not applicable
Relative density:	1.9 (water = 1)
Solubility (ies):	Low solubility in water
Partition coefficient (n-octanol/water):	Not applicable
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not applicable

Section 10: Stability and Reactivity

10.1 Reactivity:

Not reactive under normal conditions of use.

10.2 Chemical Stability:

Stable at normal ambient and anticipated storage and handling conditions.

10.3 Possibility of Hazardous Reactions:

None known

10.4 Conditions to Avoid:

Avoid unintentional contact with strong acids.

Avoid extreme high temperatures, greater than 230°C; may release asphalt fumes.

10.5 Incompatible Materials:

Strong acids - Incompatible with strong acids; may react vigorously.

10.6 Hazardous Decomposition Products:

Limestone aggregates may react with acidic groundwater to release CO₂ gas.



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Section 11: Toxicological Information

11.1 Likely routes of exposure:

Eye and Skin contact, Inhalation of dust.

11.2 Acute toxicity data:

LD₅₀ Limestone >6000 mg/kg oral (rat). Not acutely toxic by ingestion.

Skin corrosion / irritation:

Calcium carbonate may form mildly alkaline solutions when mixed with water that may cause irritation if in prolonged contact with skin.

Serious eye damage / irritation:

Aggregate particles are expected to cause irritation as a foreign object in the eye.

STOT (Specific Target Organ Toxicity) Single Exposure:

Breathing dusts may cause coughing, sneezing.

Aspiration hazard:

Does not meet criteria for classification for aspiration toxicity.

11.3 Chronic toxicity:

STOT (Specific Target Organ Toxicity) Repeated Exposure:

Contains crystalline silica. Long-term exposure to fine airborne crystalline silica dust may cause silicosis a form of pulmonary fibrosis that can cause shortness of breath, cough and reduced lung function. Particles with diameters less than 1 micrometer are considered most hazardous.

Respiratory and / or skin sensitization:

Data not available.

Germ cell mutagenicity:

Data not available.

Reproductive effects:

Data not available.

Developmental effects:

Data not available.

Effects on or via lactation:

Data not available.

Carcinogenicity:

Crystalline silica is considered a hazard by inhalation. IARC has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity.

Interactions with other chemicals:

Smoking may impair the ability of the lungs to remove inhaled dust.



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Section 12: Ecological Information

12.1 Toxicity:

Data not available.

12.2 Persistence and degradability:

Not readily biodegradable

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

Section 13: Disposal Considerations

13.1 Disposal methods:

Dispose as an inert, non-metallic mineral in accordance with applicable federal, state/provincial and local regulations. Avoid generating dust during disposal. Avoid contact with skin and eyes. See Section 8 for personal protection measures. Prevent material from entering sewers, drains, ditches or waterways.

Section 14: Transport Information

14.1 UN Number

Not regulated

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not available

14.6 Special precautions for user

Not available

14.7 U.S. Hazardous Materials Regulation (DOT 49CFR):

Not regulated

14.8 Canada Transportation of Dangerous Goods (TDG) Regulations:

Not regulated

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

USA

TSCA Status: Substances are listed on the TSCA inventory or are exempt.

Canada

NSNR Status: Substances are listed on the on the DSL or are exempt.



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Section 16: Other Information

Revision date:

August 23, 2016

References and sources for data:

CCOHS, Cheminfo
RTECS, Registry of Toxic Effects of Chemical Substances
NIOSH, Pocket Guide to Chemical Hazards.

Methods for classification of mixtures:

USA: Haz Com Standard 29 CFR 1910.1200 (2012)
Canada: Controlled Products Regulations.
UNECE, Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Legend to abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists
GHS- Globally Harmonized System for Classification and Labeling.
OEL– Occupational exposure limit
OSHA - Occupational Safety and Health Administration
TWA – Time weighted average
TLV - Threshold Limit Value
WHMIS – Canada Workplace Hazardous Materials Information System.

Additional information:

While the information provided in this document is believed to provide a useful summary of the hazards of Fly ash, the information in this document cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. The data furnished in this document do not address hazards that may be posed by other materials when mixed with Fly ash. Users should review other relevant safety data sheets before working with this product. The information presented in the Safety Data Sheet is based on current knowledge and publications and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not be interpreted as guaranteeing any specific property of the product.

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