



MATERIAL SAFETY DATA SHEET

Issue Date: September 1, 2011

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product Name: Natural Sand and Gravel

Supplier: Orca Sand & Gravel Ltd.
PO Box 699
6505 Island Highway
Port McNeill, British Columbia
V0N 2R0, Canada
Telephone: (604) 628 3353, Facsimile: (604) 628 3354

Common Names: Construction Aggregate, Concrete Sand, Concrete Gravel

2. COMPOSITION INFORMATION ON INGREDIENTS

Identification Of Ingredients: Natural sand and gravel consisting of particles of volcanic and igneous rocks with a varying composition.

The product typically contains less than 5% of quartzite (a mineral consisting predominantly of crystalline silica).

3. HAZARDS IDENTIFICATION

Potential Hazards: Dust which may irritate the eyes, respiratory tract and skin. Avoid breathing excessive dust. If the product is being sawn, ground or pulverized, usually as a result of being present in a hardened concrete product, the fine dust liberated should not be inhaled.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If this is not possible, wear a suitable NIOSH-approved respirator when dust levels exceed, or are likely to exceed, allowable exposure limits. A qualified health and safety professional should evaluate this need.

Eye Contact: Immediately flush eyes with plenty of clean water especially under the eyelids. Consult a physician if irritation persists or develops later.

Skin Contact: Wash affected skin area with mild soap and clean water. Consult a physician if irritation persists or develops later.

Ingestion: This product is not considered toxic. If person is conscious do not induce vomiting, give large quantity of water and get medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing Media: This product is non-flammable and its presence in a fire does not prevent the use of any standard extinguishing media.

No special precautions are required.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: No special precautions required. If cleanup is required where dust may be generated follow Section 4 requirements under "Inhalation". Do not dry sweep or use compressed air to recover spilled material.

Environmental Precautions: Prevent spilled material from entering storm drains, sewers, streams or other watercourses.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Avoid dust formation. Use personal protection and controls as identified in Section 8.

Storage: Do not store near food.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eye Protection: Wear safety glasses with side shields or dust goggles if excessively dusty conditions are present. Do not wear contact lenses.

Skin Protection: Wear gloves and long sleeved clothing.

Respiratory Protection: Dust safety masks to be worn appropriate to the exposure level present. All respirators must be NIOSH-approved. A health and safety professional should assess the exposure level and allowable limits and recommend appropriate respirators. Particular care should be taken if respirable silica levels are likely to exceed the appropriate Time Weighted Average.

Engineering Controls: Activities that generate dust require the use of natural ventilation or local extraction and exhaust of atmosphere and/or wet suppression methods for control of exposure. Respirable dust and quartz levels should be monitored regularly to determine worker exposure levels and where measured exposure is in excess of allowable exposure limits then engineering controls should be implemented wherever possible.

Hygiene Measures: Wash hands at the end of the workday, wash work clothing regularly.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form:** Granular solid consisting of multicoloured round or angular particles.
- Specific Gravity:** 2.70 to 2.90 (H₂O = 1.0)
- Other Properties:** None to be considered, the product is a stable solid mineral which is insoluble in water.

10. STABILITY AND REACTIVITY

- Stability:** Stable under normal temperatures and pressures.
- Conditions to Avoid:** Contact with powerful oxidizing agents such as hydrofluoric acid and fluorine.
- Hazardous Decomposition Products:** Thermal decomposition of quartz begins above 860°C (1580°F) when it slowly transforms into tridymite a form of the mineral considered more problematic to the respiratory system than quartz.

11. TOXICOLOGICAL INFORMATION

- Acute Effects:** No specific data on product.
- Prolonged or Repeated Exposure:** Prolonged exposure to respirable dusts in excess of allowable exposure can cause inflammation of the lungs leading to a medical condition known as pneumoconiosis. Prolonged exposure respirable dusts containing crystalline silica in excess of allowable exposure limits may cause a chronic form of silicosis an incurable lung disease.
- Carcinogenicity:** In October 1996, an IARC Working Group designated respirable crystalline silica as carcinogenic (Group 1). The American Conference of Governmental Industrial Hygienists (ACGIH) in 2000 listed respirable crystalline silica (quartz) as a suspected human carcinogen (A-2).

12. ECOLOGICAL INFORMATION

- Aquatic:** This product is not toxic to aquatic organisms.
- Environmental Fate:** No specific data, product is considered to be non-biodegradable.

13. DISPOSAL CONSIDERATIONS

- Unused Product/Spillage:** Dispose in accordance with federal, state and local regulation for solid, non-hazardous wastes.

14. TRANSPORT INFORMATION

DOT: This product is not regulated by DOT.

USDA / APHIS: This product is not regulated by USDA or APHIS.

15. REGULATORY INFORMATION

CERCLA/RCRA: Not reportable, not a hazardous waste.

Hazardous Waste Number: Not applicable.

California Proposition 65: This product contains a chemical (crystalline silica) known to the State of California to cause cancer.

**Cal/OSHA
8 CCR 1529, 5208:** This product does not contain 0.1% or greater of asbestiform minerals by weight and is free of any component that would trigger any of the applicable requirements of Cal/OSHA 8 CCR 1529 or 5208.

16. OTHER INFORMATION

Contact Persons: Vice President, Operations
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DISCLAIMER OF LIABILITY

Orca Sand & Gravel Ltd. presents this information in good faith believing it to be accurate but assumes no liability in connection with the use of this information by any party.

Orca Sand & Gravel Ltd. does not accept responsibility for compliance with federal, state or local laws and regulation in any jurisdiction in which the product is used. Parties using this product should always seek their own legal advice prior to use.

No warranty is made, either expressed or implied, of the fitness of the product for any purpose.