

Green Grit

SECTION 1. IDENTIFICATION

Product Identifier Green Grit

Other Means of Identification Not applicable

Other Identification Recycled glass

Manufacturer/Supplier Identifier Opta Minerals Inc., 407 Parkside Drive
P.O. Box 260, Waterdown, Ontario, Canada, L0R 2H0, (905) 689-7361,
www.optaminerals.com

Emergency Phone No. CHEMTREC (Canada & USA), 1-800-424-9300, 24 hours
CHEMTREC, (outside North America), 1-703-527-3887, 24 hours

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SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).
Classified according to the US Hazard Communication Standard (HCS 2012).

Label Elements



Danger

May cause cancer or damage to respiratory system through prolonged or repeated exposure by inhalation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Sodium monoxide	12401-86-4	10-15	Na ₂ O	
Calcium oxide	1305-78-8	5-12	CaO	
Iron Oxide	1309-37-1	<2	Fe ₂ O ₃	
Magnesium oxide	1309-48-4	<2	MgO	
Aluminum oxide	1344-28-1	1-3	Al ₂ O ₃	
Potassium oxide	12136-45-7	<1	K ₂ O	
Silica, crystalline quartz	14808-60-7	<0.3	SiO ₂	
Silica Amorphous	65997-17-3	>70	SiO ₂	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

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Move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If eye irritation persists, get medical advice or attention.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Call a Poison Centre or doctor if you feel unwell.

Most Important Symptoms and Effects, Acute and Delayed

Free crystalline silica (quartz) has been attributed to causing silicosis.

May irritate or cause inflammation or pulmonary fibrosis of the respiratory system.

Immediate Medical Attention and Special Treatment

Target Organs

Respiratory system, skin.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

Not applicable.

Specific Hazards Arising from the Product

Does not burn.

This product presents no unusual hazards in a fire situation.

Not known to generate any hazardous decomposition products in a fire.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Environmental Precautions

Although this product is not classified as an environmentally hazardous material, large or frequent spills may cause potential problems.

Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Clothing: Remove and launder clothing that is dusty before it is reused.

Conditions for Safe Storage

Store in a dry area.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Sodium monoxide			Not established			
Calcium oxide	2 mg/m3		5 mg/m3			
Aluminum oxide	1 mg/m3 * A4		5 mg/m3 *			
Iron Oxide	5 mg/m3 * A4		10 mg/m3 *			
Magnesium oxide	10 mg/m3 * A4		15 mg/m3			
Potassium oxide			Not established			
Silica, crystalline quartz	0.025 mg/m3 * A2					
Silica Amorphous	Not established					

* respirable total dust, OSHA (PEL)= 15 mg/m3 crystalline Silica, ACGIH, TWA, 0.10 mg / m3 (ACGIH), 0.025 mg /m3, respirable.

Appropriate Engineering Controls

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible. Do not get in eyes.

Skin Protection

Avoid repeated or prolonged skin contact. Always wear insulated protective clothing, if contact is possible.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with N95 or higher rating filter(s).

In conditions where the levels of airborne dust exceed the capabilities of the above referenced respirators, a supplied-air respirator may be necessary.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear colourless - green crystalline.
Odour	Odourless
Odour Threshold	Not applicable
pH	Not applicable
Melting Point/Freezing Point	Not applicable (freezing)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not applicable
Relative Density (water = 1)	Not available

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Solubility	Insoluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not applicable
Auto-ignition Temperature	Not applicable
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Not applicable.

Conditions to Avoid

Generation of dust.

Incompatible Materials

Dissolves in hydrofluoric acid.

Hazardous Decomposition Products

Silicon tetrafluoride when mixed with hydrofluoric acid.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Sodium monoxide	Not available	Not available	Not available
Calcium oxide	Not available	> 2,000 mg/kg (rat)	Not available
Aluminum oxide	Not available	> 5,000 mg/kg (rat)	Not available
Iron Oxide	Not available	> 10,000 mg/kg (rat)	Not available
Magnesium oxide	Not available	810 mg/kg (mouse)	Not available
Potassium oxide	Not available	Not available	Not available
Silica, crystalline quartz	Not available	22,500 mg/kg (rat)	Not available
Silica Amorphous	Not available	Not available	Not available

Skin Corrosion/Irritation

May cause irritation.

Serious Eye Damage/Irritation

May cause serious eye irritation based on information for closely related materials.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May irritate or cause inflammation or pulmonary fibrosis of the respiratory system.

Skin Absorption

May cause irritation.

Ingestion

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May cause irritation of the mouth, throat and stomach.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Long term inhalation of dusts can attribute to risk of lung diseases.

Inhalation of respirable silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of silica dust may cause serious health effects which can include the following; Silicosis, Accelerated Silicosis, Acute Silicosis, Cancer, Autoimmune Disease, Tuberculosis and Kidney Disease.

Respiratory and/or Skin Sensitization

May cause respiratory or skin sensitization based on limited evidence.

Carcinogenicity

Crystalline Silica (quartz) has been determined as carcinogen.

Reproductive Toxicity

Development of Offspring

There is no evidence this product contributes Teratogenicity or Embryotoxicity.

Sexual Function and Fertility

No ingredients in this product are known to contribute to reproductive toxicity.

Germ Cell Mutagenicity

Not known to be a mutagen.

Interactive Effects

None known.

SECTION 12. ECOLOGICAL INFORMATION

Although this product is not classified as an environmentally hazardous material, large or frequent spills may cause potential problems.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

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

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

Additional USA Regulatory Lists

California Proposition 65: Crystalline silica (airborne particulates of respirable size) is known by the State of California to cause cancer.

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SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 1 Flammability - 0 Instability - 0
SDS Prepared By	Ron Harber
Phone No.	(905) 689-7361, ext 351
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Key to Abbreviations	ACGIH® = American Conference of Governmental Industrial Hygienists OSHA = US Occupational Safety and Health Administration HSDB® = Hazardous Substances Data Bank
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS).
Additional Information	The U.S. National Institute for Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA) maintain sites with information about crystalline silica and its potential health effects. For NIOSH, http://www.cdc.gov/niosh/topics/silica ; for OSHA, http://www.osha.gov/dsg/topics/silicacrystalline/index . The IARC Monograph that includes crystalline silica, Volume 100C, can be accessed in PDF form at the IARC web site, http://monographs.iarc.fr/ENG/Monographs/PDFs/index.php .
Disclaimer	To the best of our knowledge, the information contained herein is accurate. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist. Opta Minerals Inc. assumes no liability arising out of the use of this product by others.

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