

**1. PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** Grit - Layer (Hen)**PRODUCT CODE:** Various**CHEMICAL NAME AND SYNONYMS:** Non-Calcareous Sand, Granitic Sand

**MATERIAL IDENTIFICATION AND USE:** *This material is a complex mixture of naturally variable minerals and consists of sub-rounded particles of various sizes used in a variety of applications. **Note:** This SDS covers many products and individual physical and chemical properties will vary. Consult individual Technical Data Sheet's for specifics.*

**Details of the supplier of the safety data sheet**

**Supplier** Pestell Nutrition  
**Address** 141 Hamilton Rd  
 New Hamburg, Ontario  
 Canada, N3A 2H1

**Phone** 519-662-2877**Email** qa@pestell.com

**Emergency telephone number (24 hr)** Canada: CANUTEC 1 613-996-6666  
 US: CHEMTREC 1 703-527-3887

**2. HAZARDS IDENTIFICATION**

**APPEARANCE:** Granular  
**ODOUR:** No appreciable odour.  
**SOLUBILITY IN WATER (%):** Insoluble.  
**MELTING POINT:** Not available.  
**pH:** Not available.  
 Skin Irritation 2  
 Eye Irritation 2  
 Skin Sensitization 1B  
 Carcinogenicity 1A  
 Specific target organ toxicity – single exposure 3  
 Specific target organ toxicity – repeated exposure

**Single word: Warning****Pictograms:**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

The approximate element composition of this material is as follows:

<b>Ingredients</b>	<b>Chemical formula by weight</b>	<b>Typical %</b>	<b>CAS #</b>
Silicon Dioxide (Total)	SiO <sub>2</sub>	60.0	112926-00-8
Alpha (Crystalline) Silica		12.0	14808-60-7
Aluminium Oxide	Al <sub>2</sub> O <sub>3</sub>	11.9	1344-28-1
Iron Oxide	Fe <sub>2</sub> O <sub>3</sub>	3.81	1309-37-1
Calcium Oxide	CaO	2.62	1305-78-8
Magnesium Oxide	MgO	1.02	1309-48-4
Sodium Oxide	Na <sub>2</sub> O	3.13	N/A
Titanium Dioxide	TiO <sub>2</sub>	0.36	13463-67-7
Potassium Oxide	K <sub>2</sub> O	2.50	N/A
Phosphate	P <sub>2</sub> O <sub>5</sub>	0.06	N/A
Manganese Oxide	MnO	0.08	1344-43-0
Chromate	Cr <sub>2</sub> O <sub>3</sub>	0.02	7775-11-3
Vanadium Oxide	V <sub>2</sub> O <sub>5</sub>	0.01	1314-62-1

### 4. FIRST AID MEASURES

<b>SKIN CONTACT:</b>	Wash with soap and water.
<b>EYE EXPOSURE:</b>	Flush with water and seek medical advice if irritation persists.
<b>INGESTION:</b>	Seek medical aid, no known acute effects
<b>INHALATION:</b>	Remove to fresh air. If breathing difficulty is encountered, seek medical aid.

**MEDICAL CONDITIONS AGGREGATED BY EXPOSURE:** Excessive dust exposure may aggravate existing respiratory disorders or diseases. Possible complications or allergies resulting in irritation to skin, eyes, and respiratory tract may occur from excessive exposure to dust.

### 5. FIREFIGHTING MEASURES

<b>FLAMABILITY:</b>	No.
<b>EXTINGUISHING MEDIA:</b>	Not applicable.
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	Not applicable.
<b>UNUSUAL FIRE/EXPLOSION HAZARDS:</b>	Not applicable.

The product will not burn or explode.

### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS AND PROTECTIVE EQUIPMENT:**

Use personal Protective Equipment (PPE) recommended in Section 7

**EMERGENCY PROCEDURES:**

Not Applicable

**METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:**

Not Applicable

**CLEAN UP PROCEDURES:**

Not Applicable

## 7. HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING

Minimize dust generation and accumulation. Avoid breathing dust.

### CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

STORAGE CONDITIONS: N/A

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE CONTROLS

#### EYE PROTECTION:

Safety goggles or glasses, as required by nature of task being performed.

#### SKIN PROTECTION:

Impervious gloves recommended, and other clothing as required by nature of work being done.

#### VENTILATION:

Minimize dust generation and accumulation, where feasible dust levels should be reduced through wet suppression and ventilation.

#### HANDLING PROCEDURES:

Respirable dust may be generated during processing, handling and storage. Avoid exposure and inhalation.

**RESPIRATORY PROTECTION:** The following chart specifies the types of respirators to be used based on airborne concentrations of respirable crystalline silica. This chart has been provided as a guide for protection of personnel that may be exposed to airborne concentrations of any particulate matter.

#### Airborne Concentration (Respirable Free Silica)

#### Type of Respirator Required

< or equal to 10 X TWAEV

*Half-mask particulate respirator with N-, R-, or P- series filter and 95, 99, or 100% efficiency.*

< or equal to 25 X TWAEV

*Powered air purifying respirator equipped with a hood or helmet, and any type of particulate filter; or supplied air respirator equipped with a hood or helmet and operated in a continuous flow mode.*

TWAEV – time-weighted average exposure value

**Where applicable, respirators should be fitted, maintained, and cleaned in accordance with the regulations made under the Occupational Health and Safety Act.**

**OTHER PROTECTIVE EQUIPMENT:** As required by nature of work being done.

#### LEAKS AND SPILLS:

Avoid breakage of bagged material or spills of bulk material. Do not dry sweep, use a dustless system (vacuum) for clean up so that airborne dust does not exceed the permissible exposure limit.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### PHYSICAL STATE:

Solid

**COLOUR:** Light brown to black, red, black, white to light grey

#### ODOR:

No data available

**ODOR THRESHOLD:** No data available

#### MOLECULAR FORMULA:

Mixture

**MOLECULAR WEIGHT:** Mixture

#### SOLVENT SOLUBILITY:

No data available

#### WATER SOLUBILITY:

Negligible

#### pH:

No data available

#### MELTING/FREEZING POINT (°C):

N/A

#### BOILING POINT (°C):

N/A

#### PARTITION COEFFICIENT: (Method, pH, Endpoint, Value)

No data available

**DECOMPOSITION TEMPERATURE (°C):** No data available

**EVAPORATION RATE (Gram/s):** No data available

**VAPOR PRESSURE (kPa):** N/A

**VAPOR DENSITY:** N/A

**RELATIVE DENSITY:** No data available

**VISCOSITY:** No data available

**FLAMMABILITY:**

**AUTOIGNITION TEMPERATURE (SOLID) (°C):** No data available

**FLAMMABILITY (SOLIDS):** No data available

**FLASH POINT (LIQUID) (°C):** No data available

**UPPER EXPLOSIVE LIMITS (LIQUID) (% BY VOL.):** No data available

**LOWER EXPLOSIVE LIMITS (LIQUID) (% BY VOL.):** No data available

## 10. STABILITY AND REACTIVITY

**PRODUCT STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Not applicable

**INCOMPATIBILITY:** Not applicable

**HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:** Not applicable

## 11. TOXICOLOGICAL INFORMATION

**EMERGENCY OVERVIEW:**

Aggregate sand products are granular materials comprised of particles less than 4mm that come in a variety of colours and are odourless, non-combustible and not explosive. Simple exposure to aggregate sand materials presents little or no hazard.

**POTENTIAL HEALTH EFFECTS:**

**EYE CONTACT:** May cause immediate or delayed irritation through exposure to airborne dust. Eye exposure requires immediate first aid or medical attention to prevent damage to the eye.

**SKIN CONTACT:** Sand is abrasive and may scratch and cause irritation.

**INHALATION (Acute):** Breathing airborne dust from sand may cause nose, throat or lung irritation, including choking, depending on degree of exposure.

**INHALATION (Chronic):** Risk of injury depends on duration and level of exposure.  
**Silicosis:** Aggregate sand material contains crystalline silica. Prolonged and repeated inhalation of respirable (i.e. airborne dust particles) crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease. See Note to Physician in Section 4 for further information.  
**Carcinogenicity:** Crystalline silica is classified by IARC as a known human carcinogen.

**INGESTION:** Aggregate sand materials should not be ingested. Ingestion of small quantities is not known to be harmful; however, ingestion of large quantities would probably cause intestinal distress.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Individuals with lung disease (e.g. bronchitis, emphysema, pulmonary disease) can be aggravated by exposure.

**OCCUPATIONAL EXPOSURE LIMITS:** The following Threshold Limit Values (TLV's) refer to airborne concentrations of substances. The potential hazard of solid particles depends on particle size, which is expressed in three forms:

Inhalable (< 100  $\mu$ m) – when deposited anywhere in the respiratory tract

Thoracic (< 25  $\mu$ m) – when deposited anywhere within the lung airways and the gas-exchange region

Respirable (< 10  $\mu$ m) – when deposited in the gas-exchange region

<u>Substance</u>	<u>C.A.S. No.</u>	<u>PEL</u>	<u>TWA</u>	<u>STEL/C</u>	<u>Critical Effect(s)</u>
Amorphous Silica	112926-00-8	N/A	10.0 mg/m <sup>3</sup>		
Alpha (Crystalline) Silica	14808-60-7	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>		
Aluminum Oxide Al <sub>2</sub> O <sub>3</sub>	1344-28-1	15 or 5mg/m <sup>3</sup>	10.0 mg/m <sup>3</sup>		

<u>Substance</u>	<u>C.A.S. No.</u>	<u>PEL</u>	<u>TWA</u>	<u>STEL/C</u>	<u>Critical Effect(s)</u>
Iron Oxide Fe <sub>2</sub> O <sub>3</sub>	1309-37-1	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>		
Calcium Oxide CaO	1305-78-8	5.0 mg/m <sup>3</sup>	2.0 mg/m <sup>3</sup>		
Magnesium Oxide MgO	1309-48-4	10.0 mg/m <sup>3</sup>	10.0 mg/m <sup>3</sup>		
Sodium Oxide Na <sub>2</sub> O	N/A	N/A	N/A		
Titanium Dioxide TiO <sub>2</sub>	13463-67-7	15.0 mg/m <sup>3</sup>	10.0 mg/m <sup>3</sup>		
Potassium Oxide K <sub>2</sub> O	N/A	N/A	N/A		
Phosphate P <sub>2</sub> O <sub>5</sub>	N/A	N/A	N/A		
Manganese Oxide MnO	1344-43-0	5.0 mg/m <sup>3</sup> C	N/A		
Chromate Cr <sub>2</sub> O <sub>3</sub>	7775-11-3	1mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>		
Vanadium Oxide V <sub>2</sub> O <sub>5</sub>	1314-62-1	0.5 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>		

<sup>1</sup> *Particulates (Insoluble) Not Otherwise Classified*

OSHA PEL – Permissible Exposure Limit (mg/m<sup>3</sup>)  
 ACGIH TWA – Time Weighted Average (mg/m<sup>3</sup>)  
 STEL/C – Short-term Exposure Limit / Ceiling (mg/m<sup>3</sup>)

## 12. ECOLOGICAL INFORMATION

There are no known environmental impacts.

## 13. DISPOSAL CONSIDERATIONS

**WASTE TREATMENT METHODS:** Dispose of waste in accordance with all applicable laws and regulations. State specific and community specific provisions must be considered. It is recommended that waste minimalization be practiced.

## 14. TRANSPORT INFORMATION

This material is not regulated for transportation as a hazardous material/dangerous good.

## 15. REGULATORY INFORMATION

### SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

**RCRA, CWA:** Earthen materials are typically not regulated as wastes unless they have been processed or contain other additives. Local regulation may vary; therefore, all waste must be disposed/recycled/reclaimed in accordance with federal, state and local environmental control regulations

**EPCRA SECTION 313:** Earthen materials are not subject to the Section 313, Toxic Chemical Release Inventory reporting requirements.

## 16. OTHER INFORMATION

### Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Pestell Nutrition and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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