**PERLITE**
CANADA INC.

## 1.    THE PERLITE

### 1.1    General

.1    Perlite is a siliceous glassy volcanic rock that will expand when heated at varying temperatures of 900° to 1100° degrees Celsius.  This industrial mineral is used primarily in the following industries: construction, insulation, filtration and horticulture.  Perlite is neutral and does not contain any nutrients, has no buffer effect, nor has the capacity of cationic exchange and is odorless.

.2    The low density and porous texture of expanded perlite combined with its low thermal conductivity, remarkable soundproofing capacity, and neutral chemical properties justify its wide use and commercial value.

### 1.2    Expanded Perlite Characteristics

| Characteristic | Sample | Silice $SiO_2$ | 73.20 % |
|---|---|---|---|
| Color | White | $A1_2O_3$ | 13.50 % |
| GE brightness % | 78 | $Fe_2O_3$ | 1.20 % |
| Refractive index | 1.484 | CaO | 0.65 % |
| Specific density after exp. (lb/cu. ft) | 4.5 – 5.5 | MgO | 0.30 % |
| Bulk density crude (lb/cu. ft.) | 65 – 68 | $K_2O$ | 3.90 % |
| Water absorption (% of wt) | 443 | $Na_2O$ | 3.35 % |
| Oil absorption (% of wt) | 275 | $TiO_2$ 0.1 | 0.06 % |
| Moisture content-humidity (%) | 0.66 | $H_2O$ | 2.5 % |
| Total ignition loss (%) | 1.21 | | |
| Wet density (kg/m3) | 103 | | |
| PH (ASTM-1208) | 8.6 | | |

### 1.3    Physical Appearance of Perlite

.1    Color varying from white to grey, odorless, can not be compacted, not flammable, non-explosive.  Perlite is organic, chemically inert and has a neutral pH level of 6.5 to 7.5.

.2    Granules of different size and density:

.1    Fine perlite (0-2 mm);

.2    Medium perlite (1-3 mm);

.3    Horticultural perlite (2-5 mm).

## 1.4   Horticultural Applications

.1   In horticultural applications, perlite is used throughout the world as a component of soil's growing mixes where it provides aeration and optimum moisture retention for superior plant growth.  For rooting cuttings, 100% perlite is used.  Studies have shown that outstanding yields are achieved with perlite hydroponics systems.

.2   Other benefits of horticultural perlite are its neutral pH and the fact that it is sterile and weed-free.  In addition, its lightweight makes it ideal for use in container growing.

.3   Other horticultural applications for perlite are as a carrier for fertilizer, herbicides and pesticides and for pelletizing seed.  Horticultural perlite is as useful to the home gardener as it is to the commercial grower.  It is used with equal success in greenhouse growing, landscaping applications and in the home in houseplants.

## 1.5   Industrial Applications

.1   Industrial applications for perlite are the most diverse, ranging from high performance fillers for plastics to cement for petroleum, water and geothermal wells.  Other applications include its use as a filter media for pharmaceuticals, food products, chemicals and water for municipal systems and swimming pools.

.2   Additional applications include its use as an abrasive in soaps, cleaners and polishes and a variety of foundries applications using perlite's insulating properties and high heat resistance.  This same heat resistance property is taken advantage of when perlite is used in the manufacture of refractory, mortars and pipe insulation.

## 1.6   Summary of applications for Perlite

.1   Horticulture;

.2   Hydrophobic;

.3   Abrasive;

.4   Absorption;

.5   Fillers;

.6   Oil well treatments;

.7 Light-weight aggregate construction;

.8 Feed / Litter;

.9 Cryogenics;

.10 Fire and thermal insulation;

.11 Filtration;

.12 Perlite has many uses and is most efficient in many applications. Perlite Canada inc. can offer you a superior quality product to meet your specific requirements.


## 2. MATERIAL SAFETY DATA FOR PERLITE

### 2.1 Inhalation

.1 Perlite dust released in handling, expanding, and subsequent end use may cause symptoms of nuisance dusts including coughing, sneezing, and minor respiratory irritation.

### 2.2 Skin and Eye

.1 Direct eye contact may cause minor physical or mechanical irritation. Skin contact not expected to cause any harmful effects.

### 2.3 Ingestion

.1 Adverse health effects are not expected as a result of ingestion.

### 2.4 Emergency and First Aid Procedures

.1 If INHALED, get fresh air. If symptoms persist, consult a physician.

.2 In case of contact flush EYES with plenty of water while lifting eyelids and rolling eyes.

.3 Do not rub eyes. If irritation, blinking or tearing persists, consult a physician.

.4 Adverse health effects are not expected if SWALLOWED.

.5 Consult a physician if symptoms develop.

**2.5    Warning Statements**

    .1    Avoid creating dust.

    .2    DUST may cause slight physical or mechanical irritation to eyes.

**2.6    Precautionary Measures**

    .1    Avoid contact with eyes. (Wear goggles if necessary).

    .2    Avoid inhalation of airborne dust. (See MSDS Section VIII for information regarding respirators and ventilation).

    .3    Equip hoppers with dust covers where applicable.

**2.7    Respiratory Protection**

    .1    A NIOSH Type TC-21C-XXX dust respirator is recommended to control exposure to dust.

**2.8    Ventilation**

    .1    Local Exhaust:  Recommended

    .2    Mechanical:  Recommended

    .3    Special:  None Required

    .4    Other:  None Required

**2.9    Protective Gloves**

    .1    Not generally required.

**2.10  Eye Protection**

    .1    Goggles recommended when dust is created.

**2.11  Other Protective Clothing or Equipment**

    .1    None Required.

**2.12 Spill & Disposal information – US Only**

.1 According to US EPA (40 CFR § 261.3), waste of this product is not defined as hazardous. Dispose of all waste in accordance with federal, state and local regulations.
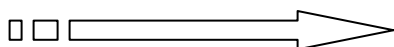
**3. PACKAGING FOR PERLITE**

**3.1 Grade for Expanded Perlite**

.1 Grade N° 4 - horticultural

.2 Grade N° 8 - medium

.3 Grade N° 12 - fine

**3.2 Bags sizes**

.1 56 cu. ft. (not returnable).

.2 4 cu. ft. (not returnable).

.3 Skid (returnable). The volume of each skid is approximately 120 cu. ft.

PERLITE
CANADA INC.

| For all your perlite needs,<br>call Perlite Canada inc. |
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## HOW TO PLACE AN ORDER

**Attention:** Nicole Duchaine, service à la clientèle
**commande@perlitecanada.com**

**Address :** 1775 52nd Avenue, Lachine, Montreal, Quebec H8T 2Y1
**Telephone :** (514) 631-4251
**Fax:** (514) 631-4254

*Do not hesitate to call us,*
*it will be our pleasure to answer all of your requests.*