SAFETY DATA SHEET - 16 Sections

The Schundler Company

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier **Expanded Vermiculite (All Grades)**		WHMIS CLASSIFICATION: Not Applicable	
Product Use **Light weight aggregate, Horticultural aggregate, Insulation, Packing Material, Absorbent**			
Manufacturer's Name **The Schundler Company**		Supplier's Name	
Street Address **150 Whitman Avenue**		Street Address	
City, State **Edison, NJ**		City	Province
Postal Code **08817**	Emergency Telephone **732-287-2244**	Postal Code	Emergency Telephone
Date SDS Prepared **August 3, 2015**	SDS Prepared By **Schundler Consulting**	Phone Number **732-287-2244**	

SECTION 2 - HAZARDS IDENTIFICATION

Route of Entry ■ Skin Contact ☐ Skin Absorption ■ Eye Contact ■ Inhalation ☐ Ingestion

Emergency Overview

Product is tan flakes, granules or powder with no odor. Dusts may cause irritation of eyes, skin, mucous membranes and respiratory tract. Wear appropriate personal protective equipment. Keep individuals not involved in the cleanup out of the area. Pick up released product with appropriate implements and return to original container if reusable. If not reusable, place in appropriate containers for disposal. Although the product itself is non-hazardous, material collected during clean up operations may be contaminated and should be treated as hazardous unless specific testing, including TCLP, shows the collected material to be non-hazardous. Product is quite inert and is not expected to present an environmental hazard.

WHMIS Symbols

Not Regulated

Potential Health Effects

Skin: Not absorbed by the skin. But may cause dryness if prolonged exposure.

Eye: May cause irritation (tear formation and redness) if dust gets in eyes.

Inhalation: No specific long term health effects have been identified for asbestos-free and/or silica free-vermiculite. As is true of all nuisance or inert particulates, inhalation of high concentrations of vermiculite dusts and/or particulates over prolonged periods of time may cause a benign pneumoconiosis.

Prolonged exposure to respirable crystalline silica (quartz) may cause a progressive, disabling lung disorder (silicosis). Symptoms may include, cough, shortness of breath, wheezing, decrease in pulmonary function, and recurring non-specific pulmonary illness. The onset of symptoms, except in cases of massive exposures, is usually gradual over a period of several years and is accompanied by changes in the x-ray picture of lungs. Crystalline silica has been listed a potential human carcinogen (2A) by the International Agency for Research on Cancer (IARC) and as a substance that can be reasonably anticipated to cause cancer in humans by the National Toxicology program.

Pre-existing lung and skin conditions may possibly be aggravated by exposure to the components of this product.

Ingestion: Ingestion of small to moderate quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients *(specific)*	%	CAS Number	LD 50 of Ingredient *(specify species and route)*	LC 50 of Ingredient *(specify species)*	OSHA PEL (mg/m3)	ACGIHTLV (mg/m3)
Vermiculite (Magnesium, Aluminum Iron Silicate)	>98	1318-00-9	Not Available	Not Available	10	1
Silica	<1	14808-60-7	Not Available	Not Available	Not Available	.05

SECTION 4 - FIRST AID MEASURES

Skin Contact

Wash thoroughly with mild soap and water. Seek medical attention if irritation develops. Remove any contaminated clothing and launder thoroughly before reuse.

Eye Contact

Flush eyes with generous quantities of water or eye rinse solution Consult physician if irritation persists.

Inhalation

Remove to fresh air. Blow nose to evacuate dust. . If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention

Ingestion

Drink generous amounts of water to reduce bulk and drying effects.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable ☐ Yes ■ No

Means of Extinction

N/A

Flashpoint (°C) and Method	Upper Flammable Limit (% by volume)	Lower Flammable Limit (% by volume)
None	None	None
Auto Ignition Temperature (°C)	**Explosion Data—Sensitivity to Impact**	**Explosion Data—Sensitivity to Static Discharge**
None	None	N/A

Hazardous Combustion Products

N/A

NFPA

Health: 1 Flammability: 0 Reactivity: 0 Other: None

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions:

If dust is present, use respirator fitted with particulate filter as specified in Section 8. Protect eyes with goggles.

Containment and Cleanup:

Vacuum clean dust with equipment fitted with HEPA filter. Use dust suppressant such as water if sweeping is necessary. Although the product itself is non-hazardous, material collected during clean-up operations may be contaminated and should be treated as hazardous unless specific testing, including TCLP, shows the collected material to be non-hazardous

Environment:

Not considered as hazardous waste by RCRA (40 CFR Part 261). Place waste and spillage in closed containers. Dispose of in approved landfill.

SECTION 7 - HANDLING AND STORAGE

Handing Procedures and Equipment

Minimize dust generation. Avoid contact with eyes. Avoid breathing dust. Repair or dispose of broken bags. Wet mopping or vacuuming with a unit that contains a HEPA filter is recommended to clean up any dusts that may be generated during handling and processing.

Hazardous Combustion Products

Store in a dry place to maintain packaging integrity and product quality. Observe all label precautions and warnings.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits ■ ACGIH TLV ■ OSHA PEL ☐ Other

Specific Engineering Controls (such as ventilation, enclosed process)

Adequate ventilation and appropriate local exhaust where needed to keep dust level below PEL. Local exhaust ventilation should be provided to maintain exposures below the limits recommended for nuisance particulates of 10 mg/M^3 for total particulates and 3 mg/M^3 for respirable particulates. Design details for local exhaust ventilation systems may be found in the latest edition of "Industrial Ventilation: A manual of Recommended Practices" published by the ACGIH Committee on Industrial Ventilation, P.O. Box 16153 Lansing, MI 48910. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer.

Personal Protective Equipment ■ Gloves ■ Respirator ■ Eye ☐ Footwear ■ Clothing ☐ Other

If Checked, Please Specify Type:

Skin: No special equipment is required.

Respiratory: Respirators fitted with filters certified to standard 42CFR84 under series N95 should be worn when dust is present. If the dust concentration is less than ten (10) time the Permissible Exposure Limit (PEL) use a quarter or half mask respirator. If dust concentration is greater than ten (10) times and less than fifty (50) times the PEL, a full-face piece respirator fitted with replaceable N95 filters is recommended. If dust concentration is greater than fifty (50) and less than two-hundred (200) times the PEL use a power air-purify (positive pressure) respirator with replaceable N95 filter. If dust concentration is greater than two-hundred (200) times the PEL use a type C, supplied air respirator (continuous flow, positive pressure), with full face piece, hood or helmet. Always consult your respiratory protective equipment supplier or a professional industrial hygienist for selection of the proper equipment. The evaluation of the need for respiratory protection should be made by a professional industrial hygienist. Always consult your respiratory protective equipment supplier or a professional industrial hygienist for selection of the proper equipment. The evaluation of the need for respiratory protection should be made by a professional industrial hygienist.

Eye: Goggles to protect from dust.

Clothing: All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned and reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid	Odor and Appearance Odorless Tan Flakes, Granules or Powder		Odor Threshold (ppm) N/A
Specific Gravity 2.3-2.6	Vapor Density (air=1) N/A		Vapor Pressure (mmHg) N/A
Evaporation Rate N/A	Boiling Point (°C) N/A	Melting Point 1260-1370 °C	Freezing Point (°C) N/A
pH 6-9	Coefficient of Water/Oil Distribution N/A		Solubility in Water Insoluble (<1%)

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability ■ Yes ☐ No	If not, under what conditions
Incompatibility with other Substances ■ Yes ☐ No	If yes, which ones? Do not store with strong acids or reducing agents.
Reactivity and under what conditions? No dangerous reactions known.	
Hazardous Decomposition Products None. Product is stable to at least 2400° F.	

SECTION 11 - TOXICOLOGICAL INFORMATION

Effects of Acute Exposure

Potential irritant for skin contact, eye contact or inhalation. Skin contact may aggravate existing dermatitis. Inhalation from prolonged and continuous exposure may aggravate existing asthmatic or respiratory conditions.

Effects of Chronic Exposure

Prolonged inhalation of excessive levels vermiculite dust may cause a simple pneumoconiotic condition, not normally associated with a decrement in lung function. In cases of long-term exposure to extremely high levels of dust, complicated pneumoconiosis with lung function may occur.

Irritancy of Product

Potential irritant for skin contact, eye contact or inhalation.

Skin Sensitization N/A	Respiratory Sensitization N/A
Carcinogenicity—IARC N/A	Carcinogenicity—ACGIH N/A
Reproductive Toxicity N/A	Teratogenicity N/A
Embrotoxicity N/A	Mutagenicity N/A

Name of Synergistic Products/Effects

N/A

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic Toxicity

Generally considered inert. In vitro ecotoxicity studies conducted on aqueous extracts of the product under the auspices of the South African Department of Water Affairs and Forestry in 1998 indicated that the product most probably is not toxic to the environment. In each of the ecotoxicity tests cited below, 50 grams of the product were extracted with a liter of distilled water. The resulting solution was used to derive the toxicity parameters. The 48 hour EC_0 and EC_{50} (Daphnia pulex lethality) were determined to be >50 milligrams of extract per liter (mg/l). The 72 hour EC_0 and EC_{50} (algal, Selenastrum capricornutum, growth inhibition) were determined to be >50 mg/l. The 72 hour EC_0 and EC_{50} (bacterial, Pseudomonas putida, growth inhibition) were determined to be >50 mg/l. The 48 hour EC_0 and EC_{50} (frog, Xenopus laevis, embryo lethality) were determined to be >50 mg/l.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal

Not considered hazardous waste by the RCRA (40 CFR Part 261). Place waste and spillage in closed containers.
Dispose in accordance with Federal, State and Local regulations.

SECTION 14 - TRANSPORT INFORMATION

Special Shipping Information No known shipping regulations.	PIN N/A
IDG N/A	DOT N/A
IMO N/A	ICAO N/A

SECTION 15 - REGULATORY INFORMATION

WHMIS Classification Not Controlled	OSHA Irritant, Lung Hazard, Skin Hazard, Eye Hazard
SERA Acute Hazard for minute contamination with silica. Otherwise, **SARA Section 311/312 (40 CFR 370 Subparts B and C)** **Acute Health:** No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No	TSCA Not listed

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

SECTION 16 - OTHER INFORMATION

Notice: This information relates only to the material designated and may not be valid for such material used in combination with any other materials or in any process. All statements, information and data provided are believed to be accurate and reliable, but are presented without any guarantee, representation, warranty or responsibility of any kind, expressed or implied. Any and all representations and/or warranties of merchantability of fitness for a particular purpose are specifically disclaimed. Users should make their own investigations as to the suitability of the information or product for their particular purpose. Nothing in this document is intended as permission, inducement or recommendation to violate any laws or practice any invention covered by existing patents, copyrights or inventions. The Schundler Company does not accept liability for any loss or damage that may occur from the use of this information.