

# SAFETY INFORMATION SHEET

Date of Issue: November 2012

Revision date: May 2016

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

### 1.1 Product identifier

**VERMICULITE**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture: Growing media additive

### 1.3 Details of the supplier of the safety data sheet

Vitax Limited  
Owen Street  
Coalville  
LE67 3DE Tel: 01530 510060 Email: info@vitax.co.uk  
Tel: 01530 510060 (Office Hours)

### 1.4 Emergency Contact:

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

(Regulation (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.2 Label elements

(Regulation (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.3 Other hazards

This material is not considered to be persistent, bioaccumulating nor toxic (PBT), very persistent nor very bioaccumulating (vPvB).

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2 Mixture

Vermiculite is the mineralogical name given to hydrated laminar magnesium-aluminum-iron silicates, which resemble mica in appearance. When subject to heat, crude vermiculite has the unusual property of exfoliating or expanding into worm-like particles (the name vermiculite is derived from the Latin 'vermiculare', meaning to breed worms.)

Chemical Class:

PHYLOSILICATES

Component	Chemical formula	CAS No/EINECS	Symbol(s)	H-phrase(s)	Concentration [%]
Vermiculite	(Mg,Fe <sup>2+</sup> , Al) <sub>3</sub> (Al,Si) <sub>10</sub> (OH) <sub>2</sub> ·4H <sub>2</sub> O	1318-00-09 / 310-127-6	No Classification	-	85 -95%
Mica phlogopite	K <sub>2</sub> (Mg,Fe <sup>2+</sup> ) <sub>6</sub> (Si <sub>6</sub> Al <sub>2</sub> )O <sub>20</sub> (OH, F) <sub>4</sub>	12001-26-2 / 310-127-6	No Classification	-	<5%
Diopside	Ca(Mg, Fe <sup>2+</sup> )Si <sub>2</sub> O <sub>6</sub>	14483-19-3 / N-A	No Classification	-	<5%
Alpha Quartz	SiO <sub>2</sub>	14808-60-7 / 238-878-4			0.01 – 0.05%

## 4. FIRST AID MEASURES

### Eye contact:

If in eyes, immediately wash out with plenty of water. See medical doctor if particles are still lodged in eye.

### Skin contact:

Harmless & non-irritant.

### Ingestion:

Do not induce vomiting. Wash out mouth with water and give plenty of water to drink. Obtain medical attention

### Inhalation:

Induce coughing.

### 4.1. Most important symptoms and effects, acute and delayed

The symptoms can be acute pain in the eye, by the ingress of dust. No delayed effects anticipated if first aid measures are applied.

### 4.2. Indication of immediate medical attention and special treatment methods

No need for immediate medical attention.

## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing

No restrictions on use of extinguishers in case of fire or in its vicinity. Use fire fighting measures that suit the environment.

### 5.2. Special risks arising from the material

The material is non-flammable and does not support fire. No hazardous thermal decomposition.

### 5.3. Advice for fire fighters

Firefighters must be equipped with personal protective equipment appropriate for the area.



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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

In case of high airborne dust levels wear personal protective equipment, dust mask (FFP2). Use eye protection to prevent particles from entering the eye.

### 6.2. Environmental precautions

No special requirement. Waste generated during application and spills are not considered hazardous. Disposal in accordance with local regulations.

### 6.3. Methods and materials for containment and clean up

Avoid sweeping and use a vacuum system to prevent dust in the air. Wear breath protective masks and goggles during clean-up in line with national legislation.

## 7. HANDLING AND STORAGE

### 7.1. Handling

Ventilation and engineering controls:

maintain dust level below TLV.

Respiratory protection (type):

wear masks suitable for nuisance dust (FFP2).

Eye protection (type):

wear protective goggles or similar.

### 7.2. Storage

Maintain good housekeeping to avoid transient dust.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Exposure limit values

ACGIH TLV for vermiculite

Respect regulatory provisions for dust (total and respirable).

(TD): 10 mg/m<sup>3</sup> - (RD): 3 mg/m<sup>3</sup>, Other - 30 mppcf

### 8.2. Exposure controls

#### 8.2.1. Occupational Exposure Controls

Provide appropriate exhaust ventilation, engineering controls and filtering at the places where dust can be generated.

Respiratory protection:

In case of prolonged exposure to dust wear a personal respirator in compliance with national legislation such as respirator or mask in compliance with EN149FFP2S

Eye protection (type):

Wear protective goggles or similar.

Wash hands before breaks and at the end of the workday. Remove and wash soiled clothing.

#### 8.2.2. Environmental Exposure Controls

No special requirement.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance

Golden brown flakes –

pH

8.5 to 9.5.

Solubility

Insoluble in water.

Melting point:

1350°C (collapse and coalescence of the individual flakes begin at this temperature).

Specific gravity:

0.06 – 0.15 g/cm<sup>3</sup> (Water = 1).

### 9.2 Other information

Slightly-abrasive, non-irritant, reflecting & rot-proof.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

None known.

### 10.5 Incompatible materials

None known.

### 10.6 Hazardous decomposition products

No information available.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Acute toxicity

Inhalation:

No acute toxic effect.

Ingestion:

No adverse effect.

Skin irritation data:

Not irritant to skin.

Eye irritation data:

Mild irritant to eyes from dust particles.

### 11.2. Chronic effects

Not mutagenic, not carcinogenic, not toxic to the reproductive system.

- Salmonella typhimurium mutagenicity:

Not mutagenic at extract concentrations below 2 000 g/l.

- Frog (*Xenopus leavis*) embryo teratogenicity: Not teratogenic at extract concentrations below 1 000 g/l.

## 12. ECOLOGICAL INFORMATION

### 12.1. Eco toxicity

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Evaluated at 50 g/l extract:

- Daphnia pulex lethality: 48 h LC0 > 50 mg/l, 48 h LC50 > 50 mg/l.

- Algal (Selenastrum capricornutum) growth inhibition:  
72 h EC0 > 50 mg/l, EC50 > 50 mg/l.

- Bacterial (Pseudomonas putida) growth inhibition:  
6 h EC0 > 50 mg/l, 6 h EC50 > 50 mg/l.

- Frog (Xenopus laevis) embryo lethality: 48 h EC0 > 50 mg/l, 48 h EC50 > 50 mg/l.

Not persistent, not bio-accumulative.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Dispose in bulk or containers according to local dump requirements. No special treatment required. Dispose of all wastes in accordance with national and local regulations.

## 14. TRANSPORT INFORMATION

### 14.1 Land transport ADR

Not a dangerous substance as defined in the above regulations.

Tunnel restriction code:

Not relevant

### 14.2 Sea transport IMDG

Not classified as dangerous in the meaning of transport regulations.

### 14.3 Air transport IATA-DGR

Not classified as dangerous in the meaning of transport regulations.

### 14.4 Special precautions for user

Not relevant

### 14.5 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

## 15. REGULATORY INFORMATION

### Notification status

This substance is classified and labelled according to Directive EC 1272/2008 Classification, Labelling and Packaging and Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

### 15.2 Chemical Safety Assessment

Not carried out for this mixture.

## 16. OTHER INFORMATION

### Reason for revision:

### Liability

Replaces version dated November 2012. Revised format- all sections updated. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.