

SAFETY DATA SHEET

Bettergrow Perlite

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material, as well as describing potential risks to the consumer and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in the Regulation (EU) No 453/2010, and described in CLP Regulation (EC) No 1272/2008.

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: Bettergrow Perlite
Material Trade Name: Expanded perlite
CAS Number: 93763-70-3
REACH Registration No.: Exempted according to article 2 §(7)
Synonyms: Not applicable

1.2 Relevant identified uses of the substances or mixture and uses advised against

Used in horticultural applications as a plant growth medium.

1.3 Details of the supplier of the safety data sheet

Growth Technology Ltd.
Great Western Way
Taunton TA2 6BX
United Kingdom
Phone +44 (0)845 430 3001
+44 (0)1823 325291
Fax +44 (0)1823 325487
info@growthtechnology.com

1.4 Emergency telephone number

In case of emergency:
Emergency telephone number: +44 (0)845 430 3001
+44 (0)1823 325 291

Hours of operation: Office hours only.

Section 2. Hazards Identification

MIXTURE:

2.1 Classification of the mixture

Classification under Directive 67/548/EEC:	No classification required in accordance with Directive 67/548/EEC.
Classification under Regulation EC No. 1272/2008:	No classification required in accordance with Regulation EC No. 1272/2008.

Physicochemical hazards:

As Perlite is a naturally occurring rock, small variable amount of crystalline silica may be present. The proportion of quartz in the respirable fraction is very low. Crystalline Silica (quartz) is harmful by inhalation over a prolonged period of time. However, the proportion on quartz is so low that this product does not present a

significant hazard to health or the environment provided that the standards of industrial hygiene outlined in this data sheet are followed.

Human health:

The product may cause irritation upon inhalation of dust particles.

Environment:

No potential environmental hazards are applicable for this substance due to the nature of the components and no ecotoxicological classifications associated with them.

2.2 Label elements

Regulation (EC) No 1272/2008:

No classification required in accordance with Regulation EC No. 1272/2008.

Hazard Statements

No classification required in accordance with Regulation EC No. 1272/2008.

Precautionary statements:

No classification required in accordance with Regulation EC No. 1272/2008.

2.3 Other hazards

PBT / vPvB:	Not applicable
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Section 3. Composition/Information on ingredients.

Amorphous mineral rock comprising of sodium potassium aluminium silicates of variable composition – chemically inert. A heat processed inorganic, inert material that does not constitute any known health hazard and is non-combustible.

Components

SILICA (as SiO ₂)	71 – 75 %
ALUMINIUM (as Al ₂ O ₃)	12 – 18 %
POTASSIUM (as K ₂ O)	2 – 5 %
SODIUM (as Na ₂ O)	2 - 5 %
CALCIUM (as CaO)	0.5 – 2 %
IRON (as Fe ₂ O ₃)	0.2 – 1.5 %
MAGNESIUM (as MgO)	0.03 – 0.5%
SULPHUR (as S ₀₃)	0 – 0.2%
FERROUS (as Fe ₀)	0 – 0.1%
CHROMIUM (as Cr ₂₀₃)	0 – 0.1%
BARIUM (as Ba ₀)	0 – 0.05%
TOTAL CHLORIDES	trace – 0.2 %
TOTAL SULPHATES	NIL
ORGANIC MATTER	NIL

Section 4. First Aid Measures

4.1 Description of first aid measures

Inhalation

Non- toxic. No evidence of causing pneumoconiosis or silicosis. Can cause irritation of throat if contact prolonged – move to fresh air and rest, if recovery not prompt obtain prompt medical attention. Avoid inhalation of fine dust. It is recommended to wear a mask or respirator.

Skin contact

Non-toxic, but in some operations may cause skin dryness or abrasion. In these cases wear protective gloves. For all operations, normal hygiene rules apply. Wash hands before eating, drinking, or smoking.

Accidental eye contact

Rinse with soft water for at least 15 minutes. If eyes continue to be sore seek medical treatment

Ingestion

Non-toxic and non-hazardous. Low oral toxicity. In case of ingestion rinse mouth and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

None expected from the substance.

4.3 Indication of any immediate attention and special treatment needed

None expected from the substance.

Section 5. Firefighting Measures

5.1 Extinguishing media

The product is non combustible. To extinguish fire use water spray, dry chemical, carbon dioxide, or chemical foam.

5.2 Special hazards arising from the substance or mixture

None known.

5.3 Advice for fire-fighters

Will not give off noxious fumes. Fusion point 1280-1350°C. Perlite is classified for reaction to fire as Class A1 in decision 96/603/EC as amended by Decision 2000/605/EN.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use suitable handling procedures to minimise dust nuisance. If dust level is excessive, wear goggles and dust masks (to BS4275). Use an FFP2 filter respirator for extra personal protection if required. Depending on application product can be dampened in bag before use to minimise dust.

6.2 Environmental precautions

Take precautionary measures against discharges into the environment.

6.3 Methods and material for containment and cleaning up

Sweep up or absorb spilled material, then place into a suitable closed container for disposal. If appropriate moisten spilled material first with water to reduce dust.

6.4 Reference to other sections

Please also refer to Sections 8 and 13.

Section 7. Handling and Storage

7.1 Precautions for safe handling

Avoid inhaling dust.

7.2 Condition for safe storage, including any incompatibilities

Store in sealed container.

7.3 Specific end use(s)

For use in horticultural applications as a plant growth medium.

Section 8. Exposure Controls/Personal Protection

8.1 Control parameters

Workplace Exposure Limit: LTEL: 10 mg/M3 (Inhalable dust), 4 mg/M3 (Respirable dust). 8 hr TWA.
Biological Exposure Limited: Not applicable.

8.2 Exposure controls**Appropriate Engineering Controls**

Not applicable.

Respiratory protection

If exposure limits are likely to be exceeded wear a dust mask or respirator.

Hand protection

None required.

Eye protection

It is good standard practice to wear safety goggles.

Skin protection

None required.

Thermal Hazards

Not applicable.

Environmental Exposure Controls

Not applicable.

Section 9. Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

Appearance:	Non uniform white particles
Particle size:	75MICRON – 6MM
Odour:	None
Refractive index:	1.47
Odour threshold:	Not applicable
pH of water slurry:	6.7 – 7.5
Softening point:	890 – 1100°C
Fusion point:	1280 - 1350°C
Evaporation rate:	Not applicable
Flammability:	Non combustible
Bulk density:	35 – 120kg/m ³
Solubility:	Insoluble in water.
Specific heat:	837J/KGK
Decomposition temperature:	No information
Thermal conductivity:	0.05W/M C

9.2 Other information

No additional information available.

Section 10. Stability and Reactivity**10.1 Reactivity**

Unreactive under normal conditions of recommended use.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

None.

10.4 Conditions to avoid

None.

10.5 Incompatible materials

None.

10.6 Hazardous decomposition products

Not applicable for this mixture.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

No tests have been performed.

Skin Corrosion/Irritation:

No tests have been performed.

Serious eye damage/irritation:

No tests have been performed.

Respiratory or skin sensitisation:

No tests have been performed.

Route of exposure:

No tests have been performed.

Symptoms related to the physical, chemical and toxicological characteristics:

Not applicable as minimal risk of adverse effects due to nature of the product.

Section 12. Ecological Information

12.1 Toxicity

No information.

12.2 Persistence and degradability

No information.

12.3 Bioaccumulative potential

No information.

12.4 Mobility in soil

Not applicable.

12.5 Results of PBT and vPvB assessment

No assessment was conducted.

12.6 Other adverse effects

Not applicable

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal operations –

Place into a suitable closed container for disposal into ordinary waste (landfill).

Disposal of packaging –
Dispose into ordinary waste (landfill).

Please follow all local, regional, national and international laws.

Section 14. Transport Information

14.1 UN number

Not applicable as the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID)

14.2 UN proper shipping name

Not applicable as the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID)

14.3 Transport hazard class(es)

Not applicable as the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID)

14.4 Packing group

Not applicable as the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID)

14.5 Environmental hazards

Not applicable as the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID)

14.6 Special precautions for user

Not applicable as the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID)

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable as the product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID)

Section 15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Not applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been conducted for this substance.

Section 16. Other Information

Other information

List of Abbreviations:

AOEL:	Adverse Observed Effects Level
CAS:	Chemical Abstracts Services
EC:	European Community
EEC:	European Economic Community
EINECS:	European Inventory of Existing Commercial Chemical Substances
EC50:	Half maximal effective concentration
LC50:	Lethal concentration causing 50% death in test species
LD50:	Lethal dose causing 50% death in test species
PBT:	Persistent, Bioaccumulative, Toxic
vPvB:	Very Persistent and very Bioaccumulative

This safety data sheet is prepared in accordance with Regulation (EC) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.