

SAFETY DATA SHEET

THERMALLY EXFOLIATED VERMICULITE

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Revision: 26th March 2021 version 5.4 supersedes version 5.3 – 15.08.19**A Safety Data Sheet is not required for this product under Article 31 of REACH.****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Product name: THERMALLY EXFOLIATED VERMICULITE (ALL GRADES)
Substance: Vermiculite
EC No.: Not Listed
REACH Registration: Exempt – [see Section 3](#)
CAS No.: 1318-00-09
Other names: Micafil, Large grade, Medium grade, Fine grade, Superfine grade, Micron grade, DL Grade, DM Grade, DF Grade, DSF Grade, DMicron Grade, L707D, L485D, L542D, L542DT, M423, L836D, L835D, CY7202, CY7201, X160, X115, MEV, DM225, DM428, DM898, DM899.

1.2 Relevant identified uses of the substance or mixture and uses advised against**Identified uses:**

- Insulation material in construction, lightweight aggregates, shell casting and ladle toppings.
- Fire resistant boards and refractory mouldings and shapes.
- Inert carrier in animal feed.
- Additive in friction linings.
- Lightweight packaging material.
- Growing media additive and a horticultural soil improver.

Uses advised against and reason:

- External cavity wall insulation – can absorb moisture.

1.3 Details of the supplier of the safety data sheet

Supplier: Dupré Minerals Limited
Address: Spencroft Road, Newcastle-under-Lyme, Staffordshire
Postcode / Country: ST5 9JE / United Kingdom
Telephone / Fax: +44 (0)1782 383000 / 383101
Email: DupreTechnical@goodwingroup.com – Email subject: *SDS Enquiry*
National Contact: UKREACHCA@hse.gov.uk

1.4 Emergency telephone number

Contact: +44 (0)1782 383000
Language: English
Opening hours: Available Monday to Friday (not bank holidays), 8 am to 5 pm (UK time)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:**

Non-hazardous substance - this product does not meet the criteria for classification in any hazard class.

A safety data sheet is not required under Article 31(3)(c) of REACH, as there is no Community workplace exposure limit for this substance. [See Section 8.1.](#)

2.1.2 Additional Information

[Section 8](#) gives further information on the workplace exposure limit.

2.2 Label elements**2.2.1 Labelling according Regulation (EC) No 1272/2008 [CLP]:**

Hazard Pictogram(s)

None

Signal word

None

Hazard statement(s)

None

Precautionary statement(s)

None

Supplemental Hazard Information

None

2.3 Other hazards

None.

This substance does not meet the criteria for PBT or vPvB according to Annex XIII of the REACH regulations.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical Name	EC No.	CAS No.	% Weight	REACH Registration No.	CLP classification according to Regulation (EC) 1272/2008
Vermiculite*	-	1318-00-09	100 %	Exempt in accordance with Annex V.7	This substance is not classified as dangerous.

*Exfoliated vermiculite is the thermally expanded form of a beneficiated mineral ore classified as a UVCB material under REACH.

3.2 Mixtures

Not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures

4.1.1 General Information:

No serious adverse effects are anticipated.

If seeking medical advice - show this SDS to the medical professional.

4.1.2 Following inhalation:

If large amounts of dust are inhaled, remove exposed person to fresh air, keep warm and at rest.

If breathing problems occur administer oxygen or CPR. Seek immediate medical attention.

4.1.3 Following skin contact:

This material is considered harmless; however, if irritation occurs then wash affected skin with plenty of water.

Get medical attention if irritation persists after washing.

4.1.4 Following eye contact:

Immediately flush with clean water or eye wash solution, holding the eyelids apart.

Seek medical attention if redness, irritation or pain persists.

4.1.5 Following ingestion:

There are no known adverse effects for small quantities and hence first aid measures are not usually required.

For larger quantities, wash mouth out with water and give water to drink. Do not induce vomiting.

If gastrointestinal symptoms occur then seek medical advice.

4.1.6 Self-protection of the first aider:

Loose material may be a slip hazard.

Wear gloves to protect against skin irritation.

4.2 Most important symptoms and effects, both acute and delayed

4.2.1 General information:

Significant acute or delayed effects are not anticipated.

4.2.2 Symptoms and effects:

When dry, dust from this product may cause irritation to eyes, nose or throat.

4.3 Indication of any immediate medical attention and special treatment needed

4.3.1 Specific treatment:

Treat symptomatically.

4.3.2 Notes for the doctor:

No special antidote required.

SECTION 5: Firefighting measures

5.1 Extinguishing media

5.1.1 General information:

Non-combustible substance; however, packaging and surrounding materials may be combustible.

5.1.2 Suitable extinguishing media:

Use an extinguishing agent suitable for the surrounding fire.

5.1.3 Unsuitable extinguishing media:

No product-specific restrictions.

5.2 Special hazards arising from the substance or mixture

5.2.1 General information:

Loose material may be a slip hazard.

5.2.2 Hazardous combustion products:

Not applicable – non-combustible substance.

5.3 Advice for firefighters

No specific fire fighting equipment is required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Use personal protective equipment ([Section 8](#)) to protect eyes, skin and clothing.

Loose material may be a slip hazard.

6.1.2 For emergency responders:

Use personal protective equipment, see [Section 8](#).

6.2 Environmental precautions

Prevent large quantities of product from entering drains, sewers or watercourses.

Protect from wind to prevent dispersion and dust creation.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Contain and prevent dispersion by, for example, erecting a temporary barrier.

6.3.2 For cleaning up:

Sweep or vacuum up and transfer in to a suitable, labelled container.

Avoid dust creation and wind dispersal by, for example, wet sweeping.

6.3.3 Disposal and other information:

Clear spills immediately to reduce slip hazard.

Dispose of in compliance with local and national regulations.

6.4 Reference to other sections

Suitable personal protective equipment is quoted in [Section 8](#).

Further information on waste and disposal is given in [Section 13](#).

SECTION 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 Protective Measures:

Spilt product should be treated as a slip hazard.

In working areas do not eat, drink or smoke when using this product.

Remove contaminated clothing and protective equipment before entering eating areas.

Wear personal protective equipment (see [Section 8](#)).

7.1.2 Measures to prevent fire:

This product is non-flammable; no special fire protection measures are necessary.

7.1.3 Measures to prevent aerosol and dust generation:

Reseal packaging when not in use.

Use engineering measures (e.g. local dust extraction) to provide effective dust control in order to ensure compliance with the current Occupational Exposure Limits.

7.1.4 Measures to protect the environment:

Do not dispose of excess material or spillages into the drains.

7.1.5 Advice on general occupational hygiene:

Wash hands after use and regularly during use especially if contaminated.

In working areas do not eat, drink or smoke when using this product.

Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for storage, including any incompatibilities

7.2.1 Technical measures and storage conditions:

Store in original packaging.

Protect packaging from damage.

7.2.2 Requirements for storage rooms and vessels:

Store in dry conditions.

The use of engineering measures (e.g. local dust extraction) is recommended to provide effective dust control in order to ensure compliance with the current Occupational Exposure Limits.

7.2.3 Further information on storage:

None.

7.3 Specific end use(s)

Recommendations:

Observe instructions for use. Use of this product is restricted to “professional user”.

Wear a suitable mask if local dust extraction is not in place.

Wear protective clothing including gloves and goggles.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Substance	CAS Number	EH40/2005 Workplace exposure limits
Vermiculite	1318-00-09	Substance not listed in EH40/2005. For WELs, treat as nuisance dust (EH40 section 44) : 10 mg m ⁻³ (Inhalable dust) / 4 mg m ⁻³ (Respirable dust)

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Local dust extraction.

8.2.2 Individual protection measures:

Hands: Protective gloves if required – no specific type recommended.

Eyes: Goggles or mask – no specific type recommended.

Skin: For workers who suffer from dermatitis or sensitive skin, protective overalls are recommended.

Respiratory: In cases of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment that complies with European or national legislation i.e. Type FFP2.

General: Protective overalls. Soiled clothing must be adequately laundered to avoid becoming a dust source.

8.2.3 Environmental exposure controls:

Use appropriate engineering controls to prevent dust escaping to the atmosphere.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|--|--|
| a) Appearance: | Gold / brown accordion-shaped granules |
| b) Odour: | Odourless |
| c) Odour threshold: | Not applicable - odourless |
| d) pH: | approx. 7 to 9 (10 % slurry mix) |
| e) Melting point/freezing point; | Melting point >1300 °C |
| f) Initial boiling point and boiling range: | Not applicable - Solid at room temperature |
| g) Flash point: | Not applicable – Not flammable |
| h) Evaporation rate: | Not applicable - Solid at room temperature |
| i) Flammability (solid, gas): | Not flammable |
| j) Upper/lower flammability or explosive limits: | No data available |
| k) Vapour pressure: | No data available |
| l) Vapour density: | No data available |
| m) Relative density: | Mineral Specific Gravity: approx.2.75
Product loose bulk density varies with grade: |
| n) Solubility(ies): | Non soluble in water |
| o) Partition coefficient: n-octanol/water: | No data available |
| p) Auto-ignition temperature: | No data available |
| q) Decomposition temperature: | No data available |
| r) Viscosity: | Not applicable - Dry solid at room temperature |
| s) Explosive properties: | Not explosive |
| t) Oxidising properties: | No data available |

9.2 Other information

None available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not likely to react adversely if stored and handled as recommended.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

If used as recommended no hazardous reactions are to be expected.

10.4 Conditions to avoid

Self attrition may lead to the formation of dust.

High humidity will lead to the product absorbing water.

10.5 Incompatible materials

Avoid contact with strong oxidisers and strong acids.

10.6 Hazardous decomposition products

None expected.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

a) Acute Toxicity

Classification criteria are not met.

b) Skin corrosion/irritation

No known hazards. Irritation is not anticipated.

a. Serious eye damage/irritation

Particulate matter may cause physical damage and irritation.

d) Respiratory or skin sensitisation

Dust may cause minor transient respiratory irritation at high concentrations.

e) Germ cell mutagenicity

No known hazards.

f) Carcinogenicity

No known hazards

g) Reproductive toxicity

No known hazards

h) STOT-single exposure

No known hazards.

i) STOT-repeated exposure

The quartz content of this product is <1 % with the inhalable/respirable fractions being much lower. However repeated exposure to respirable crystalline silica may cause fibrotic lung disease and respiratory cancer.

j) Aspiration hazard

Dust may cause irritation at high concentrations.

11.2 Information on likely routes of exposure

The most likely route for exposure is by skin contact or via airborne dust produced by self attrition.

11.3 Other information

None.

SECTION 12: Ecological information**12.1 Toxicity**

No data available

12.2 Persistence and degradability

This product is not readily biodegradable.

12.3 Bioaccumulative potential

Not applicable.

12.4 Mobility in soil

Not applicable.

12.5 Results of PBT and vPvB assessment

This mixture is not classified as PBT or vPvB according to current EU criteria.

12.6 Other adverse effects

No adverse effects expected if regulations and advice for storage and handling are observed.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

This product is not classified as hazardous waste under the EC Directive 2008/98/EC or as hazardous waste under the Hazardous Waste (England and Wales) Regulations SI 2005 No.894. Dispose of according to national / regional legislation.

SECTION 14: Transport information**14.1 UN number**

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not classified.

14.4 Packing group

Not classified.

14.5 Environmental hazards

Not classified.

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU REGULATIONS****Regulation (EC) No. 2037/2000 (substances that deplete ozone)**

Not applicable

Regulation (EC) No. 850/2004 (persistent organic pollutants)

Not applicable

Regulation (EC) No. 689/2008 (concerning the export and import of dangerous chemicals)

Not applicable

Regulation (EC) No. 1272/2008 (Classification, Labelling and Packaging of substances and mixtures)

This material does not meet any of the criteria.

Regulation (EC) No. 1907/2006 (Registration, Evaluation, Authorisation & Restriction of Chemicals (REACH))

Vermiculite is a naturally occurring product that has not been chemically modified.

Article 2 (7) (b) and Annex V paragraph 7, of the REACH regulations exempts this material from REACH registration.

US FEDERAL REGULATIONS

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

Source of Reference for OELs

HSE EH40 for Workplace Exposure Limits

15.2 Chemical safety assessment

No chemical safety assessment has been carried out by the supplier.

SECTION 16: Other information**i. Indication of changes****Version 5.4**

Extends the list of 'Other Names' in Section 1.1.

Version 5.3

Extends the list of 'Other Names' in Section 1.1.

Version 5.2

SDS Cover Sheet added at the beginning of document.

DM898 and DM899 added to the list of 'Other Names' in Section 1.1.

Version 5.11

Extends the list of products and product names to be included under 'all grades'.

Version 5.1

- Review of hazard classification with regard to the latest upstream supplier's SDS.
- Review of hazard classification with respect to known end use applications.
- Extends the list of physical and chemical properties in Section 9.1.

Version 5.0

Revision to comply with

- REACH regulations up to and including Commission Regulation (EU) 2018/589 of 18th Apr 2018 (consolidated up to M48) and further amended by Commission Regulation (EU) 2018/675 of 2nd May 2018.
- CLP regulations up to and including Commission Regulation (EU) 2017/776 of 4th May 2017 (consolidated up to M14) and further amended by Commission Regulation (EU) 2017/542 of 22nd Mar 2017, Commission Regulation (EU) 2018/669 of 16th Apr 2018 and Commission Regulation (EU) 2018/1480 of 4th Oct 2018.

ii. Abbreviations and acronyms

WEL: 8 h TWA – Workplace Exposure Limit: 8 hour Time Weighted Average

iii. Key Literature References and Sources of Data

- a. Guidance Note EH40 Occupational Exposure Limits is published annually by the Health and Safety Executive. The latest relevant limits should be observed.
- b. HS(G) 37 1993 "An introduction to Local Exhaust Ventilation" and Guidance Note EH44 2013 "Dust in the Work Place" are both available from HM Stationery Office.
- c. Advice on respiratory protective equipment is also given in BS EN 529:200.
- d. EN166: 2002 Personal Eye Protection.

iv. Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 CLP

This material is not classified under this regulation; respirable quartz content <<0.1% of the product.

v. Training Advice

All employees should be given adequate training in the proper use and handling of this product and any precautions and protective equipment required under applicable regulations.

The information given on this Safety Data Sheet is to the best of Dupré Minerals' knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the users' responsibility to satisfy themselves as to the suitability and completeness of the information for their own particular use.