



EXFOLIATORS

SAFETY DATA SHEET

EXFOLIATORS PREMIUM VERMICULITE

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

1.1 Product identifier

Product name EXFOLIATORS PREMIUM VERMICULITE (All Grades)
Synonym(s) • Exfoliators Premium Vermiculite • Premium Vermiculite • Vermiculite • Grade 1 • 301 • Grade 2 • 302com • Grade 3 • 303 • Grade 4 • 304 • Horticultural Mix • 307 • 308

1.2 Uses and uses advised against

Use(s) Hydroponics, Horticulture, Insulation, Lightweight Concrete, Refractory Insulation, Filler, Texture Coating and Absorbent

1.3 Details of the supplier of the product

Supplier name EXFOLIATORS (AUST) PTY LTD
Address 3 Kitchen Road
Dandenong South, Victoria 3175
Australia
Telephone +61 3 9706 6049
Fax +61 3 9706 6046
Email office@exfoliators.com.au
Website www.exfoliators.com.au

1.4 Emergency telephone number(s)

Emergency +61 3 9706 6049

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to SWA Criteria and the ADG Code.

GHS Classification Not Applicable
Poisons Schedule Not Applicable

2.2 GHS Label elements

Hazard Pictograms Not Applicable
Signal Word Not Applicable
Hazard statement(s) Not Applicable
Precautionary Statement(s) Not Applicable

2.3 Other hazards

No information provided.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Ingredients

Name	Product Identifier	Proportion
Vermiculite	(CAS No.) 1318-00-9	99.9 – 100%

3.2 Hazardous Components

These products may contain naturally occurring Respirable Crystalline Silica (CAS #'s 14808-60-7 and 14464-46-1) at trace concentration levels below HazCom 2012 and GHS Revision 3 hazard classification limits. Per XRC analysis, which combines the analytical capabilities of X-Ray Diffraction, Computer Controlled Scanning Electron Microscopy/Energy Dispersive Spectroscopy and Raman Spectroscopy to conduct particle-by-particle inter-instrumental relocation and physicochemical/mineralogical analysis - naturally occurring trace level substances in these products, including Respirable Crystalline Silica are inextricably bound, environmentally unavailable and at de minimis concentrations. Thus, in the current and anticipated future physical state of these products, they are believed to be incapable of causing harm under normal conditions of use or as a result of extreme upset.

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation Remove from contaminated area. Encourage casualty to blow nose to ensure clear passage of breathing. Apply artificial respiration if not breathing. If irritation or discomfort persist seek medical attention.
Skin Remove contaminated clothing and wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse. If symptoms develop seek medical attention.
Eye Immediately flush eye/s with plenty of water for at least 15minutes. Ensure complete irrigation of the eye. Remove contact lenses if easy to do so. If irritation or discomfort persist seek medical attention.

Ingestion Do NOT induce vomiting. If vomiting occurs, lean casualty forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Never give liquid to a person showing signs of reduced awareness. If symptoms develop seek medical attention.

First Aid Facilities Eye wash station. Normal washroom facilities.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Use extinguishing media suitable for surrounding environment.

5.2 Special hazards arising from the substance or mixture

Non-combustible material. Not considered a fire risk.

5.3 Advise for firefighters

Firefighting instructions Alert Fire Brigade and advise location and nature of hazard. Product is not combustible. No special firefighting procedures required. Use firefighting procedures suitable for surrounding area.

Protection during Firefighting Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA)

5.4 HAZCHEM code

None allocated

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General measures Avoid breathing dust. Use in well-ventilated area. Handle in accordance with good industrial hygiene and safety practices.

Protective equipment Wear Personal Protective Equipment (PPE) as detailed in Section 8 of the SDS.

Emergency procedure Evacuate all unnecessary personnel. Increase ventilation.

6.2 Environmental precautions

Vermiculite is inert and is not expected to present a hazard to the environment. Prevent product from entering drains and waterways. If contamination of waterways occurs, contact the Environmental Protection Authority (EPA).

6.3 Methods and materials for containment and cleaning up

Contain spillage immediately. Vacuum or wet sweep spilled material to avoid generating dust. Collect and transfer material to a suitable container for reuse or disposal. Use absorbent paper dampened with water to pick up remaining material. Wash surfaces well with soap and water. Dispose of in accordance with federal, EPA and state regulations.

6.4 References to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid generation of dust. Use smallest possible amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Before use carefully read the product label. Use of safe work practices are recommended to avoid inhalation and eye or skin contact. Observe good personal hygiene, including washing hands before eating, drinking, and smoking or using toilet facilities. Prohibit eating, drink and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store away from water, foodstuffs and incompatible materials. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

Storage container Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.
NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks.

Incompatible materials Strong acids and reducing agents.

7.3 Specific end use(s)

See Section 1 of SDS for further information.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits (OEL)

Material Name	TWA	STEL	Peak	Notes
Vermiculite	Not Available	Not Available	Not Available	

No Exposure Standards have been established for Vermiculite. However, Safe Work Australia – Workplace Exposure Standards for Airborne Contaminants states; exposure standards for dusts not otherwise classified (nuisance dusts) is 10 mg/m³.

Biological limits No biological limit values have been allocated for this material.

8.2 Exposure controls

Appropriate engineering controls

Use in well ventilated area. Local exhaust ventilation should be used to prevent excessively dusty conditions and to maintain dust levels below exposure limits. Work areas should be cleaned regularly by wet sweeping or vacuuming.

Personal protective equipment



Eye Protection

Wear safety glasses with side shields, safety goggles or full-face shield as appropriate. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. Eye protection should conform to the specifications detailed in AS/NZS 1336:2014 Eye and Face Protection – Guidelines.

Hand protection

Generally not required. However, for industrial use, wear gloves of impervious material. Reference should be made to AS/NZS 2161.1:2016 Occupational protective gloves - Selection, use and maintenance.

Body protection

Wearing of long sleeved shirts and full-length trousers is recommended. Clothing should conform to the specifications detailed in AS/NZS 4501.1:2008 Occupational Protective Clothing – Guidelines on the selection, use, care and maintenance of protective clothing.

Respiratory

If engineering controls are not effective in controlling airborne exposure then a Class P1 or P2 (Particulate) respirator should be worn. Final choice of appropriate breathing protection is dependent upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Respiratory protection should conform to the specifications detailed in AS/NZS 1715:2009 Selection, Use and Maintenance of Respiratory Protective Devices and AS/NZS ISO 16972:2015 Respiratory Protective Devices – Terms, definitions, graphical symbols and units of measurement.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eye wash station is recommended.

Thermal protection

Not Applicable

9. PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY CHARACTERISTICS

9.1 Information on basic physical and chemical properties

Physical state	Granular
Colour	Mixture of golden brown and white
Odour	Odourless
Melting point	1200 – 1320°C
Boiling point	Not Applicable
Flammability	Non-combustible
Lower Explosion limits	Not Applicable
Upper Explosion limits	Not Applicable
Flash point	Not Applicable
Auto-ignition temp.	Not Applicable
Decomposition temp.	Not Applicable
pH value	6 – 9
Kinematic viscosity	Not Applicable
Solubility	Soluble in strong mineral acids Insoluble in organic solvents Insoluble in water
Partition coefficient (n-octanol/water)	Not Applicable
Vapour pressure	Not Applicable
Density and/or relative density	Not Applicable
Relative vapour density	Not Applicable
Particle characteristics	1µm – 16mm

9.2 Other information

Bulk density	64-160 kg/m³
Specific Gravity	2.4 – 2.7

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Hazardous polymerization not expected to occur.

10.4 Conditions to avoid

Avoid dust generation.

10.5 Incompatible materials

Strong acids and reducing agents.

10.6 Hazardous decomposition products

None known.

11. TOXICOLOGICAL INFORMATION

11.1 Likely routes of exposure

Inhalation, dermal contact and eye contact. Exposure by ingestion (swallowing) is not expected to occur.

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	Inhalation of airborne dust may cause irritation to the mucous membrane and upper airways. Symptoms can include coughing, sneezing and breathing difficulties.
Skin	Prolonged contact with skin may cause irritation resulting in redness and itching. People with pre-existing skin conditions, such as dermatitis, should take extra care so as not to exacerbate the condition.
Eye	Contact with eyes may cause mechanical irritation resulting in redness, lacrimation and pain. May cause mild abrasion.
Ingestion	Ingestion of large amounts may cause gastrointestinal disturbances. Symptoms can include nausea, vomiting and abdominal pain.

11.3 Toxicological effects from short and long term exposure

Acute Toxicity:	There is no data available.
Irritation/Corrosion	There is no data available.
Sensitization:	There is no data available.
Mutagenicity:	There is no data available.
Carcinogenicity:	There is no data available.
Reproductive Toxicity:	There is no data available.
Teratogenicity:	There is no data available.
Specific Target Organ Toxicity (Single Exposure):	There is no data available.
Specific Target Organ Toxicity (Repeated Exposure):	There is no data available.
Aspiration Hazard:	There is no data available.

Potential Acute Health Effects

Eye Contact:	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Inhalation:	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin Contact:	No known significant health effects or critical hazards.
Ingestion:	No known significant health effects or critical hazards.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Eye Contact:	Adverse symptoms may include irritation and redness
Inhalation:	Adverse symptoms may include respiratory tract irritation and coughing
Skin Contact:	No known significant health effects or critical hazards.
Ingestion:	No known significant health effects or critical hazards.

Delayed and Immediate Effects and Also Chronic Effects from Short and Long Term Exposure

Short Term Exposure

Potential Immediate Effects:	No known significant health effects or critical hazards.
Potential Delayed Effects:	No known significant health effects or critical hazards.

Long Term Exposure

Potential Immediate Effects:	No known significant effects or critical hazards.
Potential Delayed Effects:	No known significant effects or critical hazards.

Potential Chronic Health Effects

General:	Repeated or prolonged inhalation of dust may lead to respiratory irritation.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.

Developmental Effects:	No known significant effects or critical hazards.
Fertility Effects:	No known significant effects or critical hazards.
Other Adverse Effects:	None known

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available for this material.

12.2 Persistence and degradability

No data available for this material.

12.3 Bio accumulative potential

No data available for this material.

12.4 Mobility in soil

No data available for this material.

12.5 Other adverse effects

No data available for this material.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal

Reuse or recycle where possible. Dispose of to an approved landfill. Dispose of in accordance with federal, EPA and state regulations.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG, IMDG OR IATA CODE

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG)	AIR TRANSPORT (ICAO- IATA / DGR)
14.1 UN Number	Not Regulated	Not Regulated	Not Regulated
14.2 Proper Shipping Name	Not Regulated	Not Regulated	Not Regulated
14.3 DG Class	Not Regulated	Not Regulated	Not Regulated
14.4 Packing Group	Not Regulated	Not Regulated	Not Regulated

14.5 Environmental hazards

No data is available for this material.

14.6 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Not regulated

14.7 Special precautions for user

HAZCHEM code None allocated

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the product

- Poison schedule** A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
- Classifications** SWA (Safework Australia) criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.
- Inventory listing(s)**
 - AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**
All components are listed on AICS, or are exempt.
 - AUSTRALIA: HCIS (Hazardous Chemical Information System)**
All components are listed on HCIS, or are exempt.

16. OTHER INFORMATION

Additional information

PPE GUIDELINES: The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment.

HEALTH EFFECTS FROM EXPOSURE: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Reference Materials / Sources for Data

- AS/NZS 1336:2014 Eye and Face Protection – Guidelines
- AS/NZS 1715:2009 Selection, Use and Maintenance of Respiratory Protective Devices
- AS/NZS 2161.1:2016 Occupational protective gloves - Selection, use and maintenance
- AS/NZS 4501.1:2008 Occupational Protective Clothing – Guidelines on the selection, use, care and maintenance
- AS/NZS ISO 16972:2015 Respiratory Protective Devices – Terms, definitions, graphical symbols and units of measurement
- Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code)
- Australian Inventory of Chemical Substances
- Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
- Hazardous Chemical Information System (HCIS)
- International Air Transport Association Dangerous Goods Regulations (DGR)
- International Bulk Chemical Code (IBC Code)
- MARPOL 73/78 Annex II Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk
- Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice
- Safe Work Australia
- Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)
- The International Maritime Dangerous Goods Code (IMDG Code)
- The Vermiculite Association
- The Work Health and Safety Act (WHS Act)
- The Work Health and Safety Regulations (WHS Regulations)
- Workplace Exposure Standards for Airborne Contaminants

Abbreviations

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS	Australian Inventory of Chemical Substances
CAS No.	Chemical Abstract Service number – used to uniquely identify chemical compounds
DGR	Dangerous Goods Regulations
EPA	Environmental Protection Authority
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
HAZCHEM Code	Emergency action code of numbers and letters which gives information to emergency services
HCIS	Hazardous Chemical Information System (HCIS)
IATA	International Air Transport Association
IBC Code	International Bulk Chemical Code
ICAO	International Civil Aviation Organisation
IMDG Code	International Maritime Dangerous Goods Code
IMO	International Maritime Organisation
kg/m ³	Kilograms per Cubic Metre
MARPOL	The International Convention for the Prevention of Pollution from Ships
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limits
pH	A numeric scale used to specify the acidity or basicity (alkalinity) of an aqueous solution. Ranges from 0 (high acidity) to 14 (high alkalinity) with 7 being neutral.
PPE	Personal Protective Equipment
SCBA	Self-Contained Breathing Apparatus
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TWA	Time-Weighted Average
WHS	Work Health and Safety

Revision history

Version	Description
1.0	Initial SDS creation
2.0	Amendment to composition and improved explanation on the toxicological effects

Prepared by

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All information contained in this Safety Data Sheet are considered to be accurate to the best of our knowledge as of the issue date specified above. Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

Revision: 2

SDS date: 31 October 2018

[End of SDS]