



Section 1: Identification

Product Identifier

Description: Ceramic parts manufactured from Aluminium Silicate

Chemical Product Name: $\text{Al}_2\text{Si}_4\text{O}_{10}(\text{OH})_2$

Synonyms: L911A, Lava, UF Lava, BF Lava, FF Lava, Pyrophyllite

Material Uses: Ceramics, chemical, refractory and electrical components

CAS#: Refer to Section 2

UN Number: Not regulated

Hazchem Code: Not applicable

Supplier Contact Information

Technical Products, Inc.

PO Box 189

Hubertus, WI 53033

Emergency Phone Information

Technical Products, Inc. 1-262-335-3635

Section 2: Hazards Identification

Classification of the substance or mixture

Hazard Classification

Not classified as hazardous

Label Elements

Human Effects	Dust generation may cause eye, skin and respiratory tract irritation Refer to Section 8.
Environmental Effects	Inadequate data available
Biological Hazard	Inadequate data available
Flammability	No specific fire or explosion hazards
Carcinogenicity	Inadequate data available
Mutagenicity	Inadequate data available
Teratogenicity	Inadequate data available



Section 3: Composition / Information on Ingredients

Substances*	CAS	Grey %
Al ₂ O ₃	1344-28-1	29.2
SiO ₂ **	7631-86-9	59.0
Fe ₂ O ₃	-	2.97
MnO	-	<0.1
MgO	-	<0.5
CaO	-	<0.1
TiO ₂	-	1.43
K ₂ O	-	1.17
Na ₂ O	-	0.26
P ₂ O ₅	-	0.14
C	-	0.06
S	-	<0.01
CO ₂	-	<0.1
Li ₂ O in ppm	-	17

* Several other trace elements exist, but none considered hazardous to human health or the environment.

** Independent studies indicate variable amounts of rutile, diaspora, mica and kaolinite (Anglo Vaal Mineralogical Laboratory 2001)

** Analysis performed in 2011 confirms that Pyrophyllite mined by Wonderstone has a free silica content of 0.908% (Dr Ansie Bruwer, Pr No. 1522574)

Section 4: First Aid

Description of First Aid Measures

In circumstances where dust may be generated from machining or disposal

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses if present, and easy to do. Continue rinsing.

Skin Contact

Wash skin with soap and water. **Ingestion** Rinse mouth. **Inhalation** Move to fresh air. Refer to Section 8.

General Advice

If symptoms persist, call a physician. Show this safety data sheet to doctor in attendance.



Section 5: Fire-Fighting Measures

Extinguishing Media

Suitable extinguishing Media

The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing Media which must not be used for safety reasons

None known

Section 6: Accidental Release Measures

Personal Precautions

Operators should use personal protective equipment (PPE). No action shall be taken involving any personal risk or without suitable training. Refer to Section 8.

Environmental Release Measures

Avoid excessive dust generation. Ensure contaminated run offs are dealt with appropriately, according to approved environmental management plans. Apply limited water to suppress potential dust before collection.

Methods and material for containment and cleaning up

Clean up promptly by scoop or vacuum.. Place into appropriate container for disposal.

Section 7: Handling And Storage

Precautions for Safe Handling

In circumstances where dust may be generated from machining or disposal

Handling

Provide appropriate exhaust ventilation at places where dust is formed.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Keep in a dry place.



Section 8: Exposure Controls/ Person Protection

Control Parameters

Exposure Limits

Applies to circumstances where dust may be generated from machining or disposal

Exposure Controls

Engineering Controls

Ensure adequate ventilation in circumstances where dust may be generated from machining or disposal, especially in confined areas. The material contains 0.9% silica, however should silica measurements exceed 10% of the OEL; the appropriate monitoring and reporting should be undertaken. It is recommended that any person working in close contact with the material should undergo regular medical examinations with a focus on visual and respiratory functions.

Personal protective equipment

In circumstances where dust may be generated from machining or disposal:

Eye Protection

Safety glasses with side-shields.

Hand Protection

No special protective equipment required.

Respiratory Protection

Provide appropriate exhaust ventilation at places where dust is formed.
Masks and respirators with appropriate particle filter should be worn.

Environmental Exposure Control

Liquid waste that is considered to be contaminated should be treated at a waste water treatment plant.



Section 9: Information on Basic Physical And Chemical Properties

Physical State	Solid
Appearance/ Color	Grey pyrophyllite is pale grey in color with homogenous appearance whilst black pyrophyllite is dark grey to black rock with patches of light colors.
Odor	None
pH	7.5 (Estimated value)
Melting Point	Approximately 1630°C.
Boiling Point	Decomposes on melting 1630°C
Flash Point	Not applicable for this material as an inorganic substance
Relative Density	2.68 to 2.72 g/c.c.
Solubility in Water	Insoluble
Flammability	No specific fire or explosion hazards
Exposure Properties	Not known
Oxidising Properties	Not known
Vapour Pressure	Not applicable
Viscosity	Not applicable
Organic Solvents	Insoluble
Freezing Point	Not applicable
Explosive Properties	Not applicable

Section 10: Accidental Release Measures

Reactivity

None reactive*

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

None known

Conditions to Avoid

Avoid generating excessive fine particles

Incompatible Materials

None known

Hazardous Decomposition Products

None known

* Under normal ambient and storage and handling conditions.



Section 11: Toxicological Information

Bio-Availability

Limited bio-availability expected in solid form

Inhalation

Pyrophyllite dust may cause irritation of eyes and respiratory tract typical of a nuisance dust.
Refer to Section 8.

Ingestion

Not toxic. If ingested, apply Section 4 measures.

Dermal

Absorption through the skin is negligible

Sensitisation

No evidence of respiratory or skin sensitisation.

Acute Effects

The product does not contribute to chronic health effects.

Carcinogenicity, Mutagenicity and Toxic to Reproduction (CMR) Effects

The product is not classified as carcinogenic, mutagenic or toxic to reproduction.

Section 12: Ecological Information

Eco Toxicity

Pyrophyllite is not known to have adverse effects to the environment.

Mobility

Not enough information is available to determine mobility in soil.

Persistence and Degradability

Not applicable to inorganic substances.

Bio-accumulation Potential

No information available.

Section 13: Disposal Considerations

Waste disposal

Re-use of pyrophyllite is recommended. In cases where re-use is not possible, the material can be disposed of on a general landfill site according to national and local legal requirements as the material is not considered hazardous.



Section 14: Transport Information

Transport Guidelines Not regulated

The handling and transportation of this material must be in compliance applicable legislation.

Section 15: Regulatory Information

Chemical Safety Assessment

A chemical safety assessment is not required as the substance is unclassified.

Handling, Storage and Disposal

National Environmental Management Waste Act, 2008.

Transport

SANS 10228, 2003: The Identification and Classification of Dangerous Goods for Transport.
South African Occupational Health and Safety, 1993 (Act 85 of 1993) as amended

Occupational

Occupational Health and Safety Act (1993). Hazardous Chemical Substances Regulations, 1995.
Occupational Exposure Limits – Recommend Limits (South Africa, 1995).
Mine Health and Safety Act, 1996 (Act 29 of 1996) as amended.

MSDS Content

Occupational Health and Safety Act (1993). Hazardous Chemical Substances Regulations, 1995.
Occupational Health and Safety Act (1993), Hazardous Chemical Substances Regulation 1179,
Aug-95
SANS 10234, 2007: Global Harmonized System of classification and labelling of chemicals (GHS).
Standards South Africa, Edition 1.

Bruwer A, 2011: Occupational Tuberculosis as Occupational Disease. Occupational Health Consulting.

Risk Phrases Safety Phrases

R20/22 Harmful by inhalation and if swallowed.
S20 When using material, do not eat or drink
S22 Do not breathe dust.
S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S29 Do not empty into drains.
S36 Wear suitable protective clothing.



Section 16: Other Information

Prepared by: _____ **Date:** 11/2/2017

Updates

The most current version of this Safety Data Sheet is available at this URL: [Technical Products, Inc.](#)

Disclaimer

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