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## Section 1: Identification

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### Product Identifier

**Description:** Ceramic parts manufactured from Aluminium Silicate

**Chemical Product Name:**  $Al_2Si_4O_{10}(OH)_2$

**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

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## Section 2: Hazards Identification

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### 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



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### Section 3: Composition / Information on Ingredients

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

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### Section 4: First Aid

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#### 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.



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## **Section 5: Fire-Fighting Measures**

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### **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

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## **Section 6: Accidental Release Measures**

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### **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.

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## **Section 7: Handling And Storage**

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### **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.



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## **Section 8: Exposure Controls/ Person Protection**

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### **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.



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## **Section 9: Information on Basic Physical And Chemical Properties**

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

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## **Section 10: Accidental Release Measures**

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### **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.



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## **Section 11: Toxicological Information**

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### **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.

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## **Section 12: Ecological Information**

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### **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.

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## **Section 13: Disposal Considerations**

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### **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.



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## **Section 14: Transport Information**

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### **Transport Guidelines** Not regulated

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

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## **Section 15: Regulatory Information**

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### **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.



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## **Section 16: Other Information**

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**Prepared by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

### **Updates**

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

### **Disclaimer**

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