

# Material Safety Data



## Filtraflo<sup>®</sup> 421

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### COMPANY DETAILS

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### 1. Product Identification

Trade Name : Filtraflo<sup>®</sup>  
Chemical Name : Perlite  
CAS Number : 93763-70-3

### 2. Composition

Perlite is essentially an amorphous, hydrated glassy volcanic rock of rhyolitic composition, consisting primarily of fused sodium potassium aluminium silicate.

Hazardous Components: Alpha - Cristobalite and Tridymite less than 0,1%  
Alpha Quartz 0,01 to 0,05%



### **3. Hazardous Identification**

Main hazard	: Perlite is classified as a nuisance dust by the Occupational Health and Safety Act Regulations for Hazardous Chemical Substances, 1995. (Perlite is also listed under Particulates Not Otherwise Classified (PNOC) by ACGIH).
Flammability	: Non flammable, non-combustible
Chemical hazard	: None
Biological hazard	: None
Reproductive hazard	: None
Eye effects	: Possible irritation from dust particles.
Skin absorption	: None
Ingestion	: None
Inhalation	: Excessive inhalation over a long period may cause harmful irritation.
Carcinogenicity	: Non carcinogenic
Mutagenicity	: n/a
Neurotoxicity	: n/a

### **4. First Aid Measures**

Product in eye	: Wash out with clear water. In severe cases where particles are not removed by washing out, refer to a doctor.
Product on skin	: Not harmful
Product ingested	: Not harmful
Product inhaled	: In cases where excessive amounts have been inhaled, remove the affected individual from the dusty area and allow to breathe clean air. Drinking of water will assist in clearing remaining dust particles from the mouth and throat. (The wearing of a paper dust mask in dusty area is recommended to prevent discomfort).

### **5. Fire Fighting Measures**

Perlite is a fully oxidised, non-flammable mineral. It is non-combustible and non flammable and does not present any fire hazard.

### **6. Accidental Release Measures**

Personal Precautions	: Wear eye protection and paper dust masks in windy conditions.
Environmental Precautions	: Perlite is inert and does not present any hazard to the environment.
Spill Procedure	: Dampen with water and sweep up.

## 7. Handling and storage

- Loading/Unloading precautions : Avoid damage to packaging and follow good housekeeping procedures. No other special precautions required.
- Handling and storage precautions : As above. Avoid moisture and contact with water.

## 8. Exposure control / personal protection

- Occupational Exposure Limits : Time Weighted Average (TWA) in 8hrs limit value is 10mg/m<sup>3</sup> for total dust and TWA limit value is 5mg/m<sup>3</sup> for respirable dust.
- Engineering control measures : Dust extraction equipment can be used where the filteraid blending method results in excessively dusty conditions.
- Personal protection – respiratory : Type FF1 paper dust mask, SABS approved, or equivalent.
- Personal protection – hand : Not required.
- Personal protection - eye : SABS approved eye protection.
- Personal protection – skin : Not required
- Other protection : None

## 9. Physical and Chemical Properties

- Appearance : White powder
- Odour : None
- Boiling point : n/a
- Melting point : Approximately 1090°C
- Flash Point : Perlite is a fully oxidised non-flammable material.
- Flammability : Non combustible and non-flammable.
- Explosive Properties : n/a
- Oxidising Properties : n/a
- Vapour pressure : n/a
- Water absorption : Approx 250%
- Specific Gravity : 2,2 - 2,4
- Solubility – water : Less than 1%

### Typical Chemical Analysis: Mass%

Silicon Dioxide	76,2
Aluminium Oxide	12,1
Potassium Oxide	4,8
Sodium Oxide	3,4
Iron Oxide	0,7
Calcium Oxide	0,6
Magnesium Oxide	0,1
Manganese Oxide	0,1
Titanium Oxide	0,1
Loss on ignition	1,9

## 10. Stability and Reactivity

Conditions to avoid	:	Perlite is a stable, inert material. It will however react with hydrofluoric acid to form silicon tetrafluoride gas, which is known to be toxic.
Incompatible materials	:	Hydrofluoric acid.
Hazardous decomposition products	:	None

## 11. Toxicological Information

Perlite is a non-toxic product, which is approved by the Food Chemicals Codex.

Acute Toxicity: LD50/oral/rat > 10gm/kg body mass

## 12. Ecological Information

Perlite is a naturally occurring mineral, and is not harmful to fauna and flora. Perlite is not biodegradable, but as an inert, non-toxic product, does not pose any threat to the environment.

## 13. Disposal Considerations

Disposal Methods	:	Dispose in accordance with local authorities requirements/regulations. No special treatment needed
Disposal of Packaging	:	The standard paper packaging used for Filtraflo filteraid products can either be disposed of or recycled.

## 14. Transport Information

This product is not classified as a hazardous material for transport.

DOT (Ground)	:	N/A
Hazard Class	:	N/A
DOT Label	:	N/A
Air	:	N/A
Water	:	N/A
Freight Classification	:	Class 250 Thermal insulation

## 15. Regulatory Information

Occupational Health and Safety Act No. 85 of 1993

Hazardous Chemical Substances Guideline No. 36 - Dusts. (OHSACT)

## 16. Other Information

Bibliography	:	Health, Environmental and Regulatory Information B Guide Perlite Institute Inc. (Revised 2001).
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