



MATERIAL SAFETY DATA SHEET

Puremet Metal Pour Filter Products

1. Product and Company Reference

- 1.1. Product Reference: Puremet Metal Pour Filter Products – Porous refractory ceramic shapes produced from an alumina, alumina silicate body. Primarily used for coarse filtration of molten metals, particularly super alloys. Various shapes are available; may be fitted with a PVC sleeve to customer requirements.
- 1.2. Company Name: Mantec Technical Ceramics Ltd
- 1.3. Contact Details: Normacot Road, Longton, Stoke on Trent, Staffordshire, ST3 1PA, England
- 1.4. Website: www.mantectechnicalceramics.com
- 1.5. Fax: +44 1782 377599
- 1.6. Email: info@mantectc.com
- 1.7. Emergency Tel: +44 1782 377550

2. Hazards Identification

The articles, as supplied, are not considered dangerous to health or the environment. Dust generated by a cutting, grinding or abrasive operation, however, may lead to respiratory problems if there is long term exposure to excessive levels. The reticulated nature of the product means it is relatively easy to break off pieces which will be sharp and will cause cuts or eye damage.

3. Composition/ Information on Ingredients

Chemical analysis shows composition of the filter to be 81% Alumina, 14% Silica with 2.5% Potash and Soda (Minor oxides of Titania, Iron, Magnesia, Calcium and Chrome).

Powder X-ray diffractometry indicates the only crystalline phase is alpha alumina

Ingredient/ Component Name	%	CAS Number	EINECS Number	Classification
Alumina (filter)	100 (filter)	1344-28-1	215-691-6	Non Hazardous

The following applies where a coloured PVC sleeve is fitted:

Ingredient/ Component Name	%	CAS Number	EINECS Number	Classification
Chlorinated Polyvinyl Chloride resin (sleeve)	75-85 (sleeve)	68648-82-8	Not assigned	
Plasticiser (sleeve)	6-7	5493-45-8, 42245-42-1		
Stabilizer (sleeve)	2-5	10584-98-2		
Processing Aids	2.5-3	1663-39-4		
Pigment ETC	<0.1			

Igniting the sleeve may be irritative to eye, nose, ear by flow gas

4. First Aid

- 4.1. Inhalation Remove from source to fresh air. If symptoms occur, seek medical attention
- 4.2. Ingestion No adverse effects expected. Treat symptoms
- 4.3. Skin contact No adverse effects expected with product. Possible mechanical irritation from direct contact with dust. In case of mechanical irritation, wash with mild soap and water and apply skin moisturizers
- 4.4. Eye contact No adverse effects with product. Possible mechanical irritation from direct contact with dust or cuts and damage due to sharpness of particles. Wash affected eye(s) with large amounts of clean water. If symptoms persist, seek medical attention

5. Fire – Fighting Measures

Ceramic product is incombustible and inert in fire therefore there are no special considerations to be made. The adhesive bonded plastic end caps, cork washers & rubber washers that may be supplied with them may burn emitting toxic, flammable fumes in fire.

6. Spillage

- 6.1. Personal Protection Avoid creating dust. Broken pieces may be a cut hazard. Wear suitable PPE

7. Handling & Storage

No special requirements

8. Exposure Control/ Personal Protection

- 8.1. Respiratory Protection If cutting, grinding, abrading is taking place

Occupational Exposure Limits:

Alumina: UK OEL EH40 10mg/m³ total dust TWA
UK 5mg/m³ respirable dust TWA

- 8.2. Hand Protection If cut hazard is identified
- 8.3. Eye Protection Recommended if cutting, grinding, abrading is taking place. In this case, the provision of clean water supply or eye wash facilities is recommended

9. Physical and Chemical Properties

	Filter	Sleeve
Appearance	pink	coloured solid
Odour	none	not available
pH	not applicable	not applicable
Boiling Point	above 1500°C	Ignition point 391°C
Melting Point	above 1200°C	Burning point 454°C
Flammability	not applicable	
Explosive Properties	not explosive	
Oxidising Properties	not oxidising	
Vapour Pressure	not applicable	
Density	<1 g/cc	
Solubility	not soluble in water and common solvents	

10. Stability and Reactivity

The article is inert and stable in normal conditions of temperature and pressure

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|-------|---|---|
| 10.1. | Conditions to avoid | none |
| 10.2. | Dangerous decomposition products (filter) | none |
| 10.3. | Dangerous decomposition products (sleeve) | acid halides, halogenated compounds, phosgene, vinyl chloride, oxides of carbon |

11. Toxicological Information

- 11.1. Alumina (RTECS Number BD 1200000, December 1997):

Tumorigenic Effects Data:

TBL₀ 90mg/kg (rat: intrapleural)

TDL₀ 200mg/kg (rat: implant) TD

200mg/kg (rat: implant)

Carcinogen Data:

ACGIH TLV: Not classifiable as a human carcinogen

- 11.2 Polyvinyl Chloride

Tumorigenic Effects Data: Available

Carcinogen Data:

IARD: Human inadequate evidence, Animal inadequate evidence, Group 3

Medical conditions aggravated by exposure: Respiratory disorders

12. Ecological Information

- 12.1. No threat is posed to the environment by this material, as it is chemically and biologically inert

13. Waste Disposal

Unused products and residue may be disposed of as non-toxic, inert materials to approved landfill sites in accordance with local regulations.

During use the product may become contaminated with hazardous materials. Please refer to the relevant safety data sheet for those materials and treat accordingly

14. Transport

Not classified as dangerous for transport

15. Regulatory Information

None

16. Additional Information

This data sheet is prepared for the specific materials listed and is only valid for such materials as supplied. The information given is believed to be accurate at the time of issue and is given in good faith. This issue supersedes all previous issues.

No representation, warranty or guarantee is made as to accuracy, liability or completeness. The product is supplied on the condition that the user accepts responsibility to satisfy himself as to suitability and completeness of such information for his own particular use.

Where the information provided herein discloses a potential hazard or hazardous ingredient, adequate warning must be provided to employees and users and appropriate precautions taken, including the practice of good industrial hygiene.

16.1. References:

**EH40 Occupational Exposure Limits. Health and Safety Executive
FICL Data Sheet DS-CW-13.127 Issue 1 1/6/1998
Register of Toxic Effects of Chemical Substances (RTECS) EC
Regulation 1907/2006 (REACH)
Supplier Material Safety Data Sheet**

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