



Material Safety Data Sheet

Product : **Multi use thermocouple**

Date : April 2001

1. Identification of Substances / Preparation and Company

Product

Multi-use thermocouple with or without aluminium protective cap.

Product Description

Multi use thermocouple has been specially designed to allow multiple temperature measurements from molten metal.

Manufacturer / Supplier Address

Minco Sampling Techniques (UK) Ltd

Tofts Farm Ind Est (East)

Brenda Rd

Hartlepool

TS25 2BS

Phone 01429 273252

Fax 01429 232611

2. Composition / Information on Ingredients

Ingredients

Vacuum formed ceramic fibre.

Paper tube bonded with an adhesive.

Sodium silicate.

Refractory cement containing a calcinated bauxitic kaolin clay composed of approx 60% almunima.

Aluminium foil with an adhesive.

Quickdry heavy duty adhesive.

Potting cement.

3. Hazard Identification

Main Hazard

Ceramic fibre

Health Effects

Eyes and skin – mild mechanical irritant.

Inhalation – may release fibrous dust. Reduce dust exposure as far as technically possible.

Summary

Unlikely to be hazardous if handled correctly.

4. First Aid Measures

Skin – in case of irritation, rinse affected areas with water and wash gently

Eyes – in case of eye contact flush with water.



5. Fire Fighting Measures

Product contains paper tube which may be combustible.
Products are supplied in cardboard boxes which may be ignited.
Any fires affecting packaging may be extinguished by water but the salvaged contents must not be used if wet.

6. Accidental Release Measures

Spillage – pick up large pieces and use a vacuum cleaner fitted with high efficiency filter. If brushing is used, ensure that the area is wetted down first. Do not use compressed air for clean up.

7. Handling and Storage

Handling

Multi use to be handled by the tube only to avoid accidental dust release and skin contact.

Storage

The storage area should be cool and dry.

8. Exposure Controls and Personal Protection

Operators using Multi use should be equipped with full safety clothing to resist metal splash as per BS 6249 part 1 1982 and should wear a secure safety helmet complete with visor, foundry boots and protective gauntlets.

Use operating procedures which will limit dust product and exposure of workers.

9. Physical and Chemical Properties

An “R” type thermocouple with pure platinum as one wire (negative) with an alloy of 87% platinum and 13% rhodium as the other wire (positive) all protected by a quartz glass.
This is then held in a paper tube and encased in a ceramic fibre sleeve.

10. Stability and Reactivity

Stable under normal conditions.

When first heated above 200 C, the starch binder will start to decompose and oxidise. The decomposition products are mainly carbon dioxide, carbon monoxide, carbon particles, water and trace gases (eg. Nitrogen dioxide, sulphur dioxide).

11. Toxicological Information

All man made mineral fibres, like some natural fibres, can produce a mild irritation resulting in itching or rarely, in some sensitive individuals, in a slight reddening. Unlike other irritant reactions this is not the result of allergy or chemical skin damage but is caused by mechanical effects.

No known disease associated with exposure to refractory ceramic fibre.

12. Ecological Information

The product is resistant to biodegradation and will remain stable over time.



13. Disposal Considerations

Waste from this product is not classified as hazardous waste under EU regulations and may generally be disposed of at a normal tipping site which has been licensed for the disposal of industrial waste.

14. Transport Information

Keep material dry.

15. Regulatory Information

Fibres included in this product are classified according to directive 97/69/EC.

Carcinogen category 2

R49

T (toxic)

may cause cancer by inhalation

Irritant

R38

Xi

irritating to skin

16. Other Information

Useful references :

ECFIA – Working Safely With Refractory Ceramic Fibre Products; code of practice (February 1998)

ECFIA – Bulletin No 11 : Ceramic Fibre, Health and Safety Aspects.

ECFIA – Bulletin No 41 : Recommended Work Practices, Secondary Processing of Ceramic Fibre.

ECFIA – Health and Safety Research Update Animal Inhalation and Human Studies January 1991.

CARE – A european programme for monitoring and reducing refractory ceramic fibre dust at the workplace, initial results.

The information contained in this safety data sheet is correct to the best of our knowledge but is given without warranty to its accuracy, reliability or completeness.

It is the users responsibility to satisfy itself as to the suitability and completeness of such information for their own particular use.