
MATERIAL SAFETY DATA SHEET

No Classification under EEC Directive 76/548/EEC
Refer Worksafe Australia Classifying Clause 1.14

1. IDENTIFICATION OF MATERIAL & SUPPLIER

Brand Name: Insulfrax® LDS Moldable

Ship. Name (CSN): None Allocated

UN Number: None Allocated

DG Class None Allocated

Packaging Group None Allocated

Hazchem Code None Allocated

Poisons Schedule Not Scheduled

Product Use High Temperature Putty

Manufacturer/Supplier: Unifrax Limited
Mill Lane, Rainford
St. Helens
Merseyside 20 WA118L
UK

Unifrax Australia Pty. Ltd.
336 Settlement Road
Thomastown 3074
Victoria
Australia

Contact Information: See page 9.

2. HAZARDS IDENTIFICATION

Flammability

Fire Hazards: Non flammable

Explosive Hazards: Non explosive

Health Hazards: Irritating to eyes, skin, respiratory system and disturbances to Gastro intestines.

MATERIAL SAFETY DATA SHEET

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3. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients:	Name	CAS	Proportion
	Colloidal silica (amorphous)	7631-86-9	50.65%
	Insulfrax Fibre	65997-17-3	20-45%
	Fumed Silica	112945-52-5	1-15%
	Other ingredients determined not to be hazardous		1-10%

Other Information Remaining components not determined to be hazardous and/or hazardous components present at less than 1.0% (0.1% for Worksafe Australia Cat. 1 & 2 carcinogens).

4. FIRST AID MEASURES

Ingestion: Ingestion is unlikely, but if it does occur DO NOT induce vomiting; drink plenty of water. Material should be excreted naturally, but if effects persists seek medical attention.

Eye: Flush immediately with large amount of water for at least 15 minutes (remove any contact lenses). Eyelids should be held open away from the eyeball to ensure thorough rinsing. Do not rub eyes.

Skin: If skin becomes irritated, remove contaminated clothing. Wash areas of contact with soap and water. Do not rub or scratch exposed skin. Using a skin cream or lotion after washing may be helpful in reducing irritation.

Inhalation: Remove exposed person/s from source of exposure to fresh air. Recovery should be rapid, but if effects persist seek medical advice.

MATERIAL SAFETY DATA SHEET

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5. FIRE FIGHTING MEASURES.

Fire Explosion Hazard:	Not Flammable and not explosive.
Hazardous Reactions/ Decomposition Products	Refer to SAFE HANDLING INFORMATION
Hazchem Code:	None Allocated.

6. ACCIDENTAL RELEASE MEASURES

Spills or Release To the Environment	Pick up large dried pieces and place in containers. Where possible, use vacuum cleaner to clean up smaller spilled material. Refer to removal procedures in use and handling.
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7. HANDLING & STORAGE

Storage Precautions:	Keep dry. No special storage requirements.
Handling:	<p>In the installation of <u>unbonded materials</u>, the following handling and installation procedures are recommended:</p> <ul style="list-style-type: none">a) All installation practices should be designed to minimise the liberation of any airborne fibre or dust.b) In large installations of several days/weeks duration, the installation area should be clearly designated and barriers erected to limit access.c) The Ceramic Materials should be stored in sealed plastic bags or similar containers until installation is to proceed. These containers should only be opened within the designated work area when work is to start.d) Where possible, materials should be delivered in sizes

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7. Handling & Storage cont'd:

such that a minimum of handling is required. However when cutting or drilling is required, these should be done with hand tools fitted with local exhaust extraction. The exhaust from such extraction equipment should be fitted and positioned away from other work areas.

- e) Empty storage bags should be folded and stored in a waste container along with any waste material.
- f) Upon completion of the job, all excess materials should be sealed in bags prior to removal from the designated work area. The work area should be vacuumed using an industrial vacuum cleaner. Wet mopping and wiping can be utilised if an industrial vacuum cleaner is not available.

For removal of Ceramic Fiber materials the following handling procedures are recommended:

- a) All installation practices should be designed to minimise the liberation of any airborne fibre or dust.
- b) In large installations of several days/weeks duration, the installation area should be clearly designated and barriers erected to prevent access.
- c) Upon completion of the job, all excess materials should be sealed in bags prior to removal from the designated work area. The work area should be vacuumed using an industrial vacuum cleaner. Wet mopping and wiping can be utilised if an industrial vacuum cleaner is not available.

For removal of embrittled Ceramic Fiber materials the following procedures, in particular the selection of respirator protection should be implemented during the removal of such materials.

MATERIAL SAFETY DATA SHEET

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7. Handling & Storage cont'd:

- a) The removal area should be signposted and contained, where workable, to minimize the transfer of dust to other work areas.
- b) Separate change areas should be provided to minimize the transfer of dust to general work areas.
- c) Where workable, the spent material should be wetted to suppress dust generation.
- d) Waste shall be placed in containers, plastic bags or other methods which prevent Fiber and/or dust emission, and disposed of in accordance with local waste disposal authority requirements.
- e) The removal area should then be cleaned using an Industrial vacuum cleaner and:-
- f) Once visible dust has been cleaned up, containment material should be removed in a manner that minimizes the liberation of any trapped dust.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Personal Protection

The National Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC May 1990) advises that for installation and removal of both bonded and unbonded ceramic Fiber material the following personal protective Equipment should be used:

- a) Disposable coveralls or long sleeve, loose fitting clothing and gloves (launderable clothing should be washed separately from other clothing).
- b) Where overhead work is involved, goggles and head covering should be worn; and
- c) A half-face (P1 or P2) respirator should be worn during work in enclosed or poorly ventilated spaces, or where

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8. Exposure Controls & Personal Protection cont'd.

evidence suggests that respirable fibre levels may exceed 0.5 f/ml.

For removal of embrittled or heat effected ceramic materials, the following personal protective equipment should be used by all personnel directly involved in the removal work:

- a) Disposable coveralls or long sleeve, loose fitting clothing and gloves (launderable clothing should be washed separately from other clothing).
- b) Where overhead work is involved, goggles and head covering should be worn. Eye protection would be provided as an integral component of a full-face respirator
- c) A class P2 respirator provides the necessary protection factor for this task. However, in some circumstances where excessive levels of dust are created, the limitations of filter loading capacity and facial seal may necessitate the use of:
 - a full (P3) cartridge respirator, or
 - a full (P3) powered air-purifying respirator or
 - a full faced, positive pressure demand airline respirator

All respiratory devices should be tested for compliance with AS/NZS 1715 & AS/NZS 1716.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	White fibrous material - Nil odour
Melting Point	1760C
Boiling Point	Not applicable
Vapour Pressure	Not applicable

MATERIAL SAFETY DATA SHEET

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9. Physical & Chemical Properties cont'd:

Specific Gravity	2.62
Flash Point	None
Flamm. Limit LEL	Not applicable
Solubility in Water	Not available
Autoignition Temp	None
Vapour Density	Not applicable
pH Value	Not applicable

10. STABILITY & REACTIVITY

Stability: Stable under normal conditions of use.

Hazardous Reactions Refer to SAFE HANDLING INFORMATION
Decomposition Products

11. TOXICOLOGICAL INFORMATION

A number of studies have been conducted on the health effects of inhalation exposure of rats and hamsters. In a lifetime (6 hours per day, 5 days a week for 24 months) nose only inhalation study, rats exposed to the maximum Tolerated Dose (30mg.m³, 200 Fibers/ml) developed progressive lung damage (interstitial fibrosis) and cancer of the lung and mesothelioma. In contrast, Hamsters similarly exposed, developed interstitial fibrosis and mesothelioma but no lung cancers. A multiple dose study (3, 9, 16mg/m³; 25, 75 and 150 Fibers/ml) found a dose related parenchymal fibrosis however, in the lowest exposed group (25 Fibers/ml), no irreversible effects were found that could be attributed to ceramic Fiber exposure. There was no statistical excess of lung tumours at any dose. One rat developed a mesothelioma in the 75 Fiber/ml exposure group. In 1987, the International Agency for Research on Cancer (IARC) reviewed the epidemiological and animal toxicology data on SMF (including ceramic Fiber, glasswool, rockwool and slagwood) and classified the group as possible human carcinogens (IARC Group 2B).

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12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Waste shall be placed in containers, plastic bags or other methods which will prevent Fiber and/or dust emission and disposed of in accordance with the local waste disposal authority requirements. There may be specific regulations at the Local, State or Federal level that pertain to this material.

14. TRANSPORT INFORMATION

No special transport requirements are necessary.

UN Number	None Allocated
Shipping Name	None Allocated
DG Class	None Allocated
Packaging Group	None Allocated
Hazchem Code	None Allocated
Poisons Schedule	Not Scheduled

15. REGULATORY INFORMATION

Risk Statement: R40 (3) Possible risk of irreversible effects. R36/37/38 Irritating to eyes, respiratory system and skin.

Safety Statement: S22 Do not breathe dust. S52 Avoid contact with eyes. S38 In insufficient ventilation, wear suitable respiratory equipment. S40 To clean floor and all objects contaminated by this

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15. Regulatory Information cont'd:

Material, use AS approved HEPA fitted vacuum cleaner.
S36/37/39 Wear suitable protective clothing, gloves and eye/
Face protection.

Hazard Category: Harmful, irritant.

Poisons Schedule: Not scheduled.

16. OTHER INFORMATION

Contact: During Business Hours Ph: +61 3 9463 7100

Emergency / After Hours Contact: Peter Willoughby
Ph: 0409 288 917

References: Replaces MSDS dated 19 March 2012

NOTICE: *The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practise any patented invention without licence. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.*

.....End of Report.....
