



SAFETY DATA SHEET

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TUFSET SUPER

Infosafe No.:LQ3UP
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ISSUED by Vesuvius Australia

1. IDENTIFICATION

GHS Product Identifier

TUFSET SUPER

Product Code

LEX70318

Company Name

Vesuvius Australia

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Recommended use of the chemical and restrictions on use

A refractory mix used as a heat containment lining for industrial furnaces and associated production units.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Not classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion	Hazard	Hazard Statement (s)
Alumina Oxide	1344-28-1	10-30 %		
Sodium Silicate	1344-09-8	10-<20 %	Xi	
Quartz/Cristobalite	14808-60-7 & 14464-46-1	0-10 %		
Ferric oxide	1309-37-1	0-10 %		
Titanium dioxide	13463-67-7	0-10 %		
Ingredients determined not to be hazardous		Balance		

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing media that are suitable for the surrounding combustible materials.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases.

Specific Hazards Arising From The Chemical

Not available

Decomposition Temperature

May form increased quantities of crystalline silica, possibly including Cristobalite silica (SiO₂) after being exposed to high temperatures (>900 deg C) during product service life.

Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

No exposure value assigned for this material by Safe Work, Australia. However, the available exposure limits for ingredients are listed below:

Safe Work, Australia Exposure Standards:

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Alumina Oxide	-	10	-	-
Ferric oxide	-	5	-	-
Crystalline Silica	-	0.1	-	-
Titanium dioxide	-	10	-	-

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Biological Limit Values

No biological limits allocated.

Appropriate Engineering Controls

Use with good general ventilation. If mists or vapours are produced, local exhaust ventilation should be used.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable mist/dust filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Slurry containing fine aggregate

Colour

White to beige

Odour

Odourless

Decomposition Temperature

May form increased quantities of crystalline silica, possibly including Cristobalite silica (SiO₂) after being exposed to high temperatures (>900 deg C) during product service life.

Melting Point

>1600°C

Boiling Point

Not applicable

Solubility in Water

Partially miscible in water

pH

11.0 - 12.5

Vapour Pressure

Not applicable

Vapour Density (Air=1)

Not applicable

Evaporation Rate

Not available

Odour Threshold

Not available

Viscosity

Not applicable

Partition Coefficient: n-octanol/water

Not available

Density

1.5g/cm³ - 2.0g/cm³

Flash Point

Not applicable

Flammability

Non flammable

Auto-Ignition Temperature

Not applicable

Explosion Limit - Upper

Not applicable

Explosion Limit - Lower

Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions of storage and handling.

Conditions to Avoid

Extremes of temperature, dust accumulation and direct sunlight. Protect from moisture.

Incompatible materials

Not available

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes.

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data available for this product.

Ingestion

May be harmful if swallowed. Ingestion of this product may cause irritation to the mouth, throat, oesophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation

Inhalation of dusts/vapors may irritate the respiratory system. Chronic exposure to this material may aggravate existing respiratory disorders and lung disorders such as bronchitis, emphysema and asthma. Onset and progression are related to dust concentrations and duration of exposure.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling.

Eye

May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory sensitisation

Not expected to be a respiratory sensitizer.

Skin Sensitisation

Not expected to be a skin sensitizer.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

This product contains crystalline silica. No exposure to free respirable crystalline silica is anticipated during normal use of this product as silica is bound in the slurry. It should be noted, however, that respirable crystalline silica has been listed as a Group 1 human carcinogen by the IARC. Inhalation of respirable silica may cause cancer, silicosis or other serious delayed lung injury. Grinding or machining of coated materials may release silica. Use approved dust respirator when grinding, sanding or machining the dried items.

Titanium dioxide is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Iron oxide is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological data are available for this material.

Persistence and degradability

Not available

Mobility

Not available

Bioaccumulative Potential

Not available

Environmental Protection

Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations. Exposure to respirable dust should be minimized by appropriate engineering controls and personal protective equipment. Loose material should be contained to prevent airborne dust.

14. TRANSPORT INFORMATION

Transport Information

Road and Rail Transport (ADG Code):

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

Marine Transport (IMO/IMDG):

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport (ICAO/IATA):

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

U.N. Number

None Allocated

UN proper shipping name

None Allocated

Transport hazard class(es)

None Allocated

IMDG Marine pollutant

No

15. REGULATORY INFORMATION

Regulatory information

Not classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

S5

Australia (AICS)

The listed chemicals are included in Australian Inventory of Chemical Substances (AICS) or otherwise notified under NICNAS.

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS created: October 2014

References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

END OF SDS

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