Thermal Defence Wrap™

Safety Datasheet

THERMAL DEFENCE WRAP

Issue Date: 01/03/2025
Review Date: 01/03/2030

Name	BOSS Passive Fire
Head Office	43 Wurrook Circuit, Caringbah NSW 2229, AUSTRALIA
Phone	1300 502 677
International	+61 2 9524 4040
Email	info@bossfire.com
Web	www.bossfire.com

1. SUBSTANCE IDENTIFICATION

Product Name	Thermal Defence Wrap™
Product Code	TD-150, TD-300 & TD-600
Recommended Use	BOSS Thermal Defence Wrap is designed to provide a simple and effective method for increasing the insulation rating of thermally conductive service penetrations through fire walls and floors used in conjunction with other BOSS firestopping products.

2. HAZARD IDENTIFICATION

Classification of the Substance/ mixture	Not classified as hazardous according to the criteria of Safe Work Australia. Not classified as a dangerous good according to the criteria of the ADG Code.
Labelling Elements	Not applicable.
Other hazards which do not result in classification	Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure. Dust and particulates released during cutting and processing will include fused silica, this can cause serious eye irritation and may cause respiratory irritation (H319, H335). These effects are usually temporary.

3. COMPOSITION / INGREDIENTS

Description	This product is paper made from acrylic bound AES wool.

Composition

Chemical Name	CAS Number	Proportion
Alkaline earth Silicate wool	436083-99-7*	75-98%
Acrylic Binder	Not applicable	2-15%
Inert inorganic material	Not Applicable	0-10%

*CAS Definition: Alkaline earth silicate (AES) consisting of silica (5-82wt%). Calcia and magnesia (18-43 wt%), alumina. Titania and zirconia (less than 6 wt%), and trace oxides.

4. FIRST AID MEASURES

Skin	Handling of this material may generate mild mechanical temporary skin irritation. If this occurs, rinse affected areas with water and wash gently. Do not rub or scratch exposed skin.
Eyes	In case of eye contact flush abundantly with water; have eye bath available. Do not rub eyes.
Nose and Throat	If these become irritated move to a dust free area, drink water and blow nose.If symptoms persist, seek medical advice.

5. FIRE FIGHTING MEASURES

Flammability	Non-combustible product. Packaging and surrounding materials may be combustible. Use extinguishing agent suitable for surrounding combustible materials.
Hazchem Code	None allocated.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Protective Equipment and Emergency Procedures	Where abnormally high dust concentrations occur, provide workers with appropriate protective equipment as detailed in section 8. Restrict access to the area to a minimum number of workers required. Restore the situation to normal as quickly as possible.
Environmental Precautions	Prevent further dust dispersion for example by damping the materials. Do not flush spillage to drain and prevent from entering natural watercourses. Check for local regulations, which may apply.
Methods and Materials for Containment and Clean Up	Pick up large pieces and use a vacuum cleaner fitted with high efficiency filter (HEPA). If brushing is used, ensure that the area is wetted down first. Do not use compressed air for clean up. Do not allow to be wind blown. Do not flush spillage to drain and prevent from entering natural watercourses. For waste disposal see Section 13, Disposal Considerations.

7. HANDLING & STORAGE

Precautions for Safe Handling	Before use carefully read the product label. Use of safe work practices is recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas. Handling of dried product can be a source of dust emission. The process or processes should be designed to limit the amount of handling. Regular good housekeeping will minimise secondary dust dispersal.
Storage	Store in sealed container in cool, dry area, removed from foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.

8. EXPOSURE CONTROL & PERSONAL PROTECTION

General
Handling material may generate respirable dust. Industrial hygiene standards and occupational exposure limits vary between countries and local jurisdictions. Check which exposure levels apply to your facility and comply with local regulations. If no regulatory dust or other standards apply, a qualified industrial hygienist can assist with a specific workplace evaluation including recommendations for respiratory protection.

National Exposure Standards Hygiene Standards & Exposure Limits

Country	Chemical Name	Exposure Limit	Sources
Australia	Low Bio-persistent MMVF	2 mg/m^3	Safe work Australia
Australia	Crystalline silica	0.1 mg/ m^3	

Engineering Controls
Review your applications in order to identify potential sources of dust exposure. Local exhaust ventilation, which collects dust at source, can be used. For example down draft tables, emission controlling tools and materials handling equipment. Keep the workplace clean. Use a vacuum cleaner fitted with an appropriate filter; avoid brushing and compressed air.

Personal Protective Equipment	
Personal Protective Equipment	**Skin Protection:** Disposable coveralls or long-sleeve loose-fitting clothing and PVC or rubber gloves are recommended, (launderable clothing should be washed separately from other clothing). **Eye Protection:** As necessary wear dust-proof goggles or safety glasses with side shields. **Respiratory Protection:** For dust concentrations below the exposure limit value, PPE is not required but FFP2 respirators may be used on a voluntary basis. All respiratory devices should be tested for compliance with AS/NZS 1715 & AS/NZS 1716.
Ventilation	Use with adequate natural or mechanical ventilation during installation. If cutting dried material with power tools, local extraction ventilation is recommended. Clean area by wet sweeping or clean dried area with vacuum cleaner with an appropriate filter.

Information and Training of Workers	Workers should be trained on good working practices and informed on applicable local regulations. This may include: - the potential risks to health resulting from the exposure to dust; - the requirements regarding smoking, eating and drinking at the workplace; - the requirements for protective equipment and clothing; - the good working practices to limit dust emissions; - the proper use of protective equipment;
Environmental Exposure Controls	Refer to local applicable environmental permitted standards for air, water and soil. For waste, refer to Section 13.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	White Paper
Boiling Point	Not applicable
Flash Point	Not applicable
Autoflammability	Not applicable
Oxidising Properties	Not applicable
Relative Density	200 kg/m³
Solubility	Less than 1 mg/l
Partition Coefficient	Not applicable
Odour	None
Melting Point	>1200°C
Flammability	Not applicable
Exposure Properties	Not applicable
Vapour Pressure	Not applicable
pH	Not applicable
Length Weighted	
Geometric Mean Diameter	1.4 - 3µm

10. STABILITY & REACTIVITY

Reactivity	The material is stable and non-reactive
Chemical Stability	AES wool is inorganic, stable and inert
Possibility of Hazardous Reactions	During first heating, oxidation products from the organic binder might be emitted in a temperature range from 180°C to 600°C. It is recommended to ventilate the room until gases and fumes have disappeared. Avoid exposure to high concentrations of gas or fumes.
Conditions to Avoid	Please refer to handling and storage advice in Section 7
Incompatible Materials	None
Hazardous Decomposition Products	Upon heating above 900°C for sustained periods, this amorphous material begins to transform to mixtures of crystalline phases. For further information please refer to Section 11.

11. TOXICOLOGICAL INFORMATION

Toxicology	When fired, these products may contain minimal amounts of crystalline silica. Prolonged/repeated inhalation of respirable crystalline silica dust may cause delayed lung injury (silicosis). IARC (International Agency for Research on Cancer) states that there is "sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources to classify crystalline silica as carcinogenic to humans (Group 1)". (Monograph V 68). In making the overall evaluation the Working Group noted however that carcinogenicity in humans was not detected in all industrial circumstances studied. **Experimental Study:** Animals exposed to very high concentrations of crystalline silica, artificially or by inhalation, have reported fibrosis and tumours (IARC Monographs 42 and 68). Inhalation and intra-tracheal installation of crystalline silica in rats caused lung cancer. However, studies in other species such as mice and hamsters caused no lung cancer. Crystalline silica also caused fibrosis in rats and hamsters in several inhalation and intra-tracheal installation studies. In evaluating crystalline silica as a cancer risk, the International Agency for Research on Cancer (IARC) reviewed several studies from different industries and concluded that crystalline silica from occupational sources inhaled in the form of quartz or cristobalite is carcinogenic to humans (Group 1) [IARC Monograph; vol.68; June 1997]. However, in reaching its conclusion, IARC stated that the carcinogenicity in humans could not be found in all industries reviewed and that carcinogenicity might be dependent on inherent characteristics of crystalline silica or on external factors affecting biological activity (e.g., cigarette smoking) or distribution of its polymorphs.
Routes of Exposure	**Swallowed** If ingested in sufficient quantity may cause irritation to the mouth & throat. **Eyes** Irritant, Exposure may result in lacrimation, irritation, pain, and redness. **Skin** Prolonged contact may result in irritation, itching, inflammation and possible skin rash. **Inhalation** Respirable dust from dried material may cause irritation to nose, throat and upper respiratory tract.

12. ECOLOGICAL INFORMATION

Ecological Information	These products are inert materials, which remain stable over the time. Silica occurs naturally as quartz, flint, diatomite, agate, chalcedony, chert and tridymite. It is not anticipated to have an adverse effect on the environment. Starch is a carbohydrate polymer, composed of 25% amylose, and 75% amyl pectin and occurs naturally in some foods. No adverse effects of this material on the environment are anticipated.

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Place in sealed, appropriately labelled plastic bags and dispose of in accordance with local authority guidelines.

14. TRANSPORT HAZARDS

Not regulated for transport purposes	
UN Number	None allocated.
Subsidiary risk(s)	None allocated.
Hazchem Code	None allocated.
EPG	None allocated.
DG Class	None allocated.
Packing Group	None allocated.
Tertiary risk(s)	None allocated.

15. REGULATORY INFORMATION

Poison Schedule	None available.

16. OTHER INFORMATION

Disclaimer	The information provided in this safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage transportation, disposal and release and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

LIMITATION

BOSS Passive Fire Pty Ltd has provided the above technical information in good faith and to the best of its knowledge. This information was deemed to be correct at the time of publication. Should any data come to BOSS Passive Fire's attention relating to the fire resistance or performance of the product described BOSS Passive Fire reserve the right to amend this report.

BOSS Passive Fire strive to constantly improve and develop products so this information may change without notice.

The information contained herein has been developed as a guide only and it does not constitute a guarantee of compliance of all applications. Each project and/or application may have specific requirements and you should investigate these carefully. Ensure that you have read and understood the appropriate certification relative to your needs, and ensure you seek acceptance from the Certifying Authority or compliance inspector before installation. For updates on the range of BOSS Fire® certification please contact BOSS Technical Services.

FURTHER INFORMATION

For additional technical information on the performance of Thermal Defence Wrap™, other BOSS Fire® products or any other BOSS Fire® related information please contact us on:

AU: 1300 502 677
NZ: 0800 502 677
www.bossfire.com

ADMIN
+612 9524 4040
info@bossfire.com

HEAD OFFICE
43 Wurrook Circuit, Caringbah NSW 2229, AUSTRALIA