



## MATERIAL SAFETY DATA SHEET

Product Name: FBS-1 Glass wool insulation

Australia

**STATEMENT OF HAZARDOUS NATURE:** This product is not classified as hazardous according to the criteria of the National Occupational Health and Safety Commission (NOHSC).

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**IMPORTANT NOTICE:** This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with National Occupational Health & Safety Commission (NOHSC) guidelines. As such, the information in it must not be altered, deleted or added to. The Supplier will issue a new MSDS when there is a change in product specifications and/or NOHSC guidelines/regulations. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organisation.

<b>Product name:</b>	FBS-1 Glass wool insulation
<b>Applicable In:</b>	Australia
<b>Other Names:</b>	FBS-1 glass wool batts, gold batts, FBS-1 insulation batts, insulation wool, Bradford™, Acousticlاد™, Acousticon™, Acoustilag, Anticon™, Attenucheck™, Ductel™, Ductwrap™, Flexitel™, Linacoustic™, Multitel™, Quietel™, Specitel™, Supertel™, Thermatel™, Thermocoustic™, Ultratel™, Insulwool™, Exact-o-board™, Tuff-skin™, Building Batts, Building Blanket, Special Flexible, Partition Batts, Semi-rigid Multi Service Board, MSB, Multiflex, Rigid, Superboard, Sectional Pipe Insulation, SPI, Light Appliance, Ductliner, Blackseal, Insulfoil
<b>Manufacturer's Product Code:</b>	Not Applicable
<b>UN number:</b>	None Allocated
<b>Dangerous goods class &amp; Subsidiary Risk:</b>	None Allocated
<b>Hazchem code:</b>	None Allocated
<b>Poisons schedule number:</b>	None Scheduled
<b>Use:</b>	Thermal and acoustic insulation with energy conservation attributes. Used in homes, public and commercial buildings, warehouses, industrial and petrochemical plants, motor vehicles, ships, public transport, power station and white goods

**Physical Description/Properties:**

<b>Appearance:</b>	A matt of yellow fibrous material resembling wool. It is supplied in different shapes and sizes wrapped in plastic. It may be rigid or flexible; and facings such as aluminium foil, vinyl, and synthetic tissues applied to meet specific purposes.
<b>Boiling Point: (°C)</b>	Not determined
<b>Melting Point: (°C)</b>	>704 degrees Celsius
<b>Vapour pressure:</b>	Not applicable
<b>Specific gravity (H<sub>2</sub>O = 1)</b>	Variable
<b>Flashpoint:</b>	Not applicable
<b>Flammability Limits:</b>	
<b>Solubility in water:</b>	Negligible

**Reactivity with common substances, for example, air or water:**

This product is not reactive.

<b>Auto-ignition temperature (°C):</b>	Not applicable
<b>Odour Threshold:</b>	Usually odourless but may have faint amine odour
<b>Lower Explosion Limit:</b>	Not applicable
<b>Upper Explosion Limit:</b>	Not applicable
<b>Self Accelerating Decomposition:</b>	300 degrees Celsius

**Ingredients:**

<b>Chemical Name:</b>	<b>CAS Number:</b>	<b>Proportion:</b>	<b>Exposure Limits *</b>
Fiberised bio-soluble glass	65997-17-3	>85%	None allocated for this product, but CSR recommends 0.5 f/ml time-weighted average (TWA) for respirable fibres.
Heat cured resin	25104-55-6	<15%	-
Solvent refined mineral oil	8012-95-1	<2%	-

**Other Properties:**

FBS-1 glass wool consists of >85% fibres and <15% unfiberised particles. The fibres are made to target diameters of 4.5 to 6.0 microns, and dissolve in body fluids. The fibres and particles are amorphous (non-crystalline). Fibres are bonded together to form the product and minimise the release of dusts. The cured resin is stable and will remain intact for the life of the product under normal atmospheric conditions.

**HEALTH HAZARD INFORMATION**

FBS-1 glass wool insulation, once installed, does not release dust or fibres, and does not cause any health effects. Handling, installing or removing the product may result in some dust and it is likely that there will also be concurrent exposure to other construction materials and general dusts. Users of this product are therefore advised to consider these other exposures when handling, installing or removing FBS-1 glass wool insulation.

Products designed for high temperature applications (above 177 degrees Celsius), may release gases (CO<sub>2</sub>, formaldehyde, amines) irritating to the eyes, nose and throat during initial heat-up. In confined or poorly ventilated areas, use air supplied respirators during the first heat-up cycle.

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory discomfort and/or congestion.

Skin itching may be a symptom experienced by some people handling FBS-1 glass wool insulation. It can be treated by gently washing the affected area with soap and warm water.

Eye discomfort may occur if dust gets in the eyes, and treated by flushing eyes with copious amounts of water.

## Health Effects

### *Acute:*

- Swallowed:** Unlikely under normal conditions of use, but would result in irritation of the lips, mouth and stomach.
- Eye:** FBS-1 glass wool dust, if it gets into the eyes may cause eye discomfort resulting in watering and redness.
- Skin:** Handling FBS-1 glass wool and its dust may irritate the skin resulting in itching and occasionally a red rash. The rash is not allergic and usually disappears quickly.
- Inhaled:** The dust may cause discomfort of the nose, throat and respiratory tract, especially in those suffering from upper respiratory or chest complaints such as hay fever asthma or bronchitis.

### *Chronic:*

There are no known long term health effects. This product has been shown to be bio-soluble in laboratory studies carried out for CSR Bradford Insulation by the Institute of Occupational Medicine in Scotland. Bio-soluble means that any fibres inhaled into the lungs dissolve in body fluids and are then cleared from the lungs. The fibres would comply with the short term bio persistence test in note Q of NOHSC:10005(1999) published by the National Occupational Health and Safety Commission (NOHSC).

## First Aid

- Swallowed:** Rinse the lips and mouth with water, give water to drink, and seek medical attention.
- Eye:** Flush with copious amounts of water. If symptoms persist seek medical attention.
- Skin:** Wash thoroughly with soap and water and, if itching persists, seek medical attention.
- Inhaled:** Remove to fresh air. If symptoms persist seek medical attention.
- Advice to Doctor:** This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

## PRECAUTIONS FOR USE

- Exposure Standards:** This product has been assessed by CSR Bradford Insulation according to the criteria of the National Occupational Health and Safety Commission (NOHSC): NOHSC:1008(1999) and NOHSC:10005(1999). As a result of the assessment, this product is not classified as hazardous according to the NOHSC criteria.
- The product is not listed in the Standard for the Uniform Scheduling of Drugs and Poisons.
- FBS-1 glass wool insulation is not subject to specific state occupational health and safety regulations.

Engineering Controls:	Work practices should minimise the release of, and exposure to, fibres and/or dust. Hand tools that generate the least amount of dust and fibres are recommended. If power tools are used directly on the product, appropriate dust collection systems are recommended. Work areas should be cleaned regularly, and vacuuming or damp sweeping is recommended.
Ventilation:	During most applications and installation of this product, no special ventilation will be required. However, if dusty, or in confined spaces, local exhaust ventilation is recommended. For fixed manufacturing situations using this product, the need for ventilation should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.
Special Considerations for Repair / Maintenance:	The use of personal protective equipment as outlined below is recommended during work in areas or on equipment where this product has been installed.
Personal Protection:	
Skin Protection:	Direct skin contact can be minimised by wearing long sleeved shirts and long trousers, a cap or hat, and standard duty gloves conforming to Australian Standard AS 2161 (Industrial safety gloves and mittens). Work clothes should be washed regularly and separately from other clothes.
Eye Protection:	When handling FBS-1 glasswool, particularly handling it overhead or in enclosed or poorly ventilated areas such as ceiling spaces or risers, eye contact with dust or fibre can be avoided by wearing ventilated non-fogging dust resistant goggles conforming to Australian and New Zealand Standard AS/NZS 1336 (Recommended practices for occupational eye protection).
Respiratory Protection:	When handling FBS-1 glass wool, particularly during work in enclosed or poorly ventilated areas, an approved particulate respirator conforming to Australian and New Zealand Standards AS/NZS 1715 (Selection, use and maintenance of respiratory protective devices) and 1716 (Respiratory protective devices) is recommended.
Personal Hygiene:	Washing of exposed skin with soap and water at the end of a shift is recommended.
Flammability:	FBS-1 glass wool is non-flammable, but the plastic wrapping, resin binder, and some facings (e.g. vinyl tissue) may decompose, smoulder or burn in a fire or when heated above 300 degrees Celsius. In the event of a major fire, heavy smoke, or fire in an enclosed area, fire fighters should wear self-contained breathing apparatus.

## SAFE HANDLING INFORMATION

Storage and Transport:	This product should be stored in its factory packaging in low traffic areas, and in intact containers or under sheet covers. This product is not regulated as a dangerous good. No special transport requirements are necessary.
Spills and disposal:	Any spilt material or off-cuts from installation should be cleaned up, and disposed of in accordance with local authority guidelines. Any spilt material due to accidents or off-cuts from installation should be cleaned up, and disposed of in accordance with local authority guidelines. Use personal protective equipment as described in 'Precautions for Use' of this material safety data sheet when handling uncontained material.
Fire/explosion hazard:	FBS-1 glass wool is non-flammable, but the plastic wrapping, resin binder, and some facings (e.g. vinyl tissue) may decompose, smoulder or burn in a fire; or when heated above 300 degrees Celsius.

FBS-1 glass wool insulation has a 4 zero fire rating when subjected to

early fire hazard tests in accordance with the Australian Standard - AS 1530 Part 3-1999.

Heat Evolved index (Rating 0-10)	0
Smoke Developed index (Rating 0-10)	0
Spread of Flame index (Rating 0-10)	0
Ignitability index (Rating 0-20)	0

Smoking and Other Dust: Inhalation of airborne particles from other sources, including those from cigarette smoke, may increase the risk of lung disease. CSR recommends that all storage and work areas should be non-smoking zones, and other airborne contaminants be kept to a minimum.

#### TOXICOLOGICAL INFORMATION

Following a thorough review of all of the medical-scientific data available at a meeting in October 2001, the International Agency for Research on Cancer (IARC) panel lowered the classification for glass wool insulation fibres from a Group 2B classification ("possibly carcinogenic to humans") to a Group 3 classification ("not classifiable as to carcinogenicity to humans"). IARC said that there is "no evidence of increased risks of lung cancer or of mesothelioma...from occupational exposures during the manufacture of these materials, and inadequate evidence overall of any cancer risk."

#### ECOLOGICAL INFORMATION

This product is not manufactured with, nor does it contain any Class I Ozone depleting chemicals as defined by the EPA in Title VI of the Clean Air Act Amendments of 1990 40 CFR Part 82, Protection of Stratospheric Ozone.

This product is not classified as a hazardous air pollutant in Title III Clean Air Act of 1990.

Binder-coated glass wool is hydrophobic, therefore, no adverse environmental effects would be expected if this product were accidentally released in the water or soil. No harm to fish or wildlife would be caused by this product.

### CONTACT POINT

For further information on this product, please contact the following:

CSR Building Products Limited (ABN 55 008 631 356), 9 Help Street, Chatswood NSW 2067, Australia. Phone +61 2 9235 8000 or 1800 807 668 (available in Australia only). Fax +61 2 9372 5819.

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