

1. IDENTIFICATION

| | |
|----------------------------|--|
| Product Name | Glass Wool Batts |
| Other Names | No Data Available |
| Uses | No Data Available |
| Chemical Family | No Data Available |
| Chemical Formula | No Data Available |
| Chemical Name | Glass Wool Batts |
| Product Description | Phenolic resin bonded fibrous glass insulation |

Contact Details of the Supplier of this Safety Data Sheet

| Organisation | Location | Telephone |
|-------------------------|--|-----------------|
| Redox Pty Ltd | 2 Swettenham Road Minto NSW 2566 Australia | +61-2-97333000 |
| Redox Pty Ltd | 11 Mayo Road Wiri Auckland 2104 New Zealand | +64-9-2506222 |
| Redox Inc. | 3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA | +1-424-675-3200 |
| Redox Chemicals Sdn Bhd | Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia | +60-3-5614-2111 |

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

| Organisation | Location | Telephone |
|----------------------------|--------------|--|
| Poisons Information Centre | Westmead NSW | 1800-251525 131126 |
| Chemcall | Australia | 1800-127406 +64-4-9179888 |
| Chemcall | Malaysia | +64-4-9179888 |
| Chemcall | New Zealand | 0800-243622 +64-4-9179888 |
| National Poisons Centre | New Zealand | 0800-764766 |
| CHEMTREC | USA & Canada | 1-800-424-9300 CN723420 +1-703-527-3887 |

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Not scheduled

Globally Harmonised System

Hazard Classification NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Signal Word None

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

| Chemical Entity | Formula | CAS Number | Proportion |
|--------------------------------------|-------------------|------------|---------------|
| Fibrous Glass | No Data Available | 65997-17-3 | 83.0 - 97.0 % |
| Urea Extended Phenolic Resin (cured) | No Data Available | 25104-55-6 | 3.0 - 17.0 % |

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

| | |
|--|---|
| Swallowed | Non hazardous when ingested. May cause discomfort or irritation of the GI tract. |
| Eye | Flush eyes with flowing water for at least 15 minutes. If irritation persists consult a physician. |
| Skin | Frequent rinsing of skin surface with water remove accumulated fibers will minimize irritation. If irritation persists consult a physician. Treat as a mechanical irritant. |
| Inhaled | Remove to fresh air. Drink water to clear throat and blow nose to evacuate fibers. |
| Advice to Doctor | No Data Available |
| Medical Conditions Aggravated by Exposure | Pre-existing upper respiratory and lung diseases may be aggravated by dust. The product is a mechanical irritant for skin, eyes and upper respiratory system. |

5. FIRE FIGHTING MEASURES

| | |
|---|--|
| General Measures | Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. |
| Flammability Conditions | No Data Available |
| Extinguishing Media | Use water, foam, dry chemical or carbon dioxide. |
| Fire and Explosion Hazard | Resin or kraft paper/foil facing will burn causing dense acrid smoke. |
| Hazardous Products of Combustion | HEAT-UP PRECAUTIONS: During initial heat-up of high temperature insulation products to temperatures above 350OF, an acrid odor and smoke may be given off. CO, CO2, Hydrocarbon particulate. |
| Special Fire Fighting Instructions | Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. |
| Personal Protective Equipment | Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). There is a possibility of explosive dust-air mixtures, and dust explosion. |
| Flash Point | No Data Available |
| Lower Explosion Limit | No Data Available |

| | |
|----------------------------------|-------------------|
| Upper Explosion Limit | No Data Available |
| Auto Ignition Temperature | No Data Available |
| Hazchem Code | No Data Available |

6. ACCIDENTAL RELEASE MEASURES

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|---|--|
| General Response Procedure | Avoid accidents, clean up immediately. May be slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment. |
| Clean Up Procedures | Spill or Leak Procedures: Pick up and discard large pieces. Vacuum clean dust. Use a dust suppressant if sweeping is necessary. |
| Containment | Stop leak if safe to do so. Isolate the danger area. |
| Environmental Precautionary Measures | Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. |
| Evacuation Criteria | Evacuate all unnecessary personnel. |
| Personal Precautionary Measures | Personnel involved in the clean up should wear full protective clothing as listed in section 8. |

7. HANDLING AND STORAGE

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|------------------|---|
| Handling | Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. |
| Storage | Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Protect from direct sunlight, moisture and static discharges. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail. |
| Container | Store in original packaging as approved by manufacturer. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|--------------------------------------|--|
| General | Based on prudence and not significance risk, ACGIH and Taita recommends a maximum exposure level of 1 fiber/cc (8 hour TWA, NIOSH 7400 B Method) for fibrous glass. |
| Exposure Limits | No Data Available |
| Biological Limits | No information available on biological limit values for this product. |
| Engineering Measures | A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded. |
| Personal Protection Equipment | RESPIRATOR: Wear a P1 or P2 particulate respirator when handling this product (AS1715/1716). EYES: Safety glasses with side shields (AS1336/1337). HANDS: Neoprene gloves (AS2161). CLOTHING: Long-sleeved protective coveralls and safety footwear (AS3765/2210). |
| Work Hygienic Practices | No Data Available |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------|-----------------|
| Physical State | Solid |
| Appearance | Fibrous product |

| | |
|---|--|
| Odour | no appreciable odour |
| Colour | Yellow or black fibrous product |
| pH | No Data Available |
| Vapour Pressure | No Data Available |
| Relative Vapour Density | No Data Available |
| Boiling Point | No Data Available |
| Melting Point | No Data Available |
| Freezing Point | No Data Available |
| Solubility | Insoluble |
| Specific Gravity | Variable |
| Flash Point | No Data Available |
| Auto Ignition Temp | No Data Available |
| Evaporation Rate | No Data Available |
| Bulk Density | No Data Available |
| Corrosion Rate | No Data Available |
| Decomposition Temperature | No Data Available |
| Density | No Data Available |
| Specific Heat | No Data Available |
| Molecular Weight | No Data Available |
| Net Propellant Weight | No Data Available |
| Octanol Water Coefficient | No Data Available |
| Particle Size | No Data Available |
| Partition Coefficient | No Data Available |
| Saturated Vapour Concentration | No Data Available |
| Vapour Temperature | No Data Available |
| Viscosity | No Data Available |
| Volatile Percent | No Data Available |
| VOC Volume | No Data Available |
| Additional Characteristics | No Data Available |
| Potential for Dust Explosion | There is a possibility of explosive dust-air mixtures, and dust explosion. |
| Fast or Intensely Burning Characteristics | No Data Available |
| Flame Propagation or Burning Rate of Solid Materials | No Data Available |
| Non-Flammables That Could Contribute Unusual Hazards to a Fire | No Data Available |
| Properties That May Initiate or Contribute to Fire Intensity | No Data Available |
| Reactions That Release Gases or Vapours | No Data Available |
| Release of Invisible Flammable Vapours and Gases | No Data Available |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical Stability | Material is stable |
| Conditions to Avoid | None in designed use. |
| Materials to Avoid | Hydrofluoric acid will dissolve glass. |
| Hazardous Decomposition Products | Facing and binder burns or decomposes in a fire. Decomposition products are carbon monoxide, carbon dioxide, carbon dioxide, carbon particulate and traces of hydrogen cyanide from pyrolysis of the resin. |

11. TOXICOLOGICAL INFORMATION

General Information

Hazard Summary: The International Agency for Research on Cancer (IARC) has classified fiber glass wool as a possible in which fiber glass wool was injected or implanted in animals. However, large-scale human mortality studies of U.S. and European fiber glass wool factory workers did not provide conclusive evidence that fiber glass wool caused cancer in humans. However, IARC does regard it prudent to treat any material for which there is sufficient evidence of carcinogenicity in animals as if it were a possible human carcinogen. Therefore, IARC has classified respirable duct from this product in Group 2B (possibly carcinogenic).

Health Effects: There are confirmed reports of contact dermatitis. A 1987 epidemiological study of more than sixteen thousand U.S. man-made vitreous fiber manufacturing workers has shown to statistically significant increased risks of malignant or nonmalignant diseases. A 1990 update of this study reported a small, statistically significant increase in respiratory cancer among workers when compared with populations in their communities. Confounding factors (such as smoking, exposure to other hazardous materials etc.) are thought to be responsible for this small apparent increase, and an expanded study is currently underway to investigate other possible contributing factors.

Inhalation

Soreness of the upper respiratory system

EyeIrritant

May cause mechanical irritation

SkinIrritant

May cause mechanical irritation. May cause contact dermatitis.

Sensitisation

There have been reports of reactions among persons with extreme chemical hypersensitivity.

Carcinogen Category

No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological information available for this product.

Persistence/Degradability

No information available on persistence/degradability for this product.

Mobility

No information available on mobility for this product.

Environmental Fate

Avoid contaminating waterways, drains and sewers.

Bioaccumulation Potential

No information available on bioaccumulation for this product.

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS

General Information

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

Special Precautions for Land Fill

Contact a specialist disposal company or the local waste regulator for advice. Incinerate at an approved site following all local regulations. This material may be suitable for approved landfill.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name

Glass Wool Batts

Class

No Data Available

| | |
|---------------------------|-------------------|
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |

Land Transport (Malaysia)

ADR

| | |
|-----------------------------|-------------------|
| Proper Shipping Name | Glass Wool Batts |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |

Land Transport (New Zealand)

NZS5433

| | |
|-----------------------------|-------------------|
| Proper Shipping Name | Glass Wool Batts |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |

Land Transport (United States of America)

US DOT

| | |
|-----------------------------|-------------------|
| Proper Shipping Name | Glass Wool Batts |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |

Sea Transport

IMDG Code

| | |
|-----------------------------|-------------------|
| Proper Shipping Name | Glass Wool Batts |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| EMS | No Data Available |

Marine Pollutant No

Air Transport

IATA DGR

Proper Shipping Name Glass Wool Batts
Class No Data Available
Subsidiary Risk(s) No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information No Data Available

Poisons Schedule (Aust) Not scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Assessed

National/Regional Inventories

Australia (AICS) Listed
Canada (DSL) Not Determined
Canada (NDSL) Not Determined
China (IECSC) Not Determined
Europe (EINECS) Not Determined
Europe (REACH) Not Determined
Japan (ENCS/METI) Not Determined
Korea (KECI) Not Determined
Malaysia (EHS Register) Not Determined
New Zealand (NZIoC) Not Determined
Philippines (PICCS) Not Determined
Switzerland (Giftliste 1) Not Determined

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|---|----------------|
| Switzerland (Inventory of Notified Substances) | Not Determined |
| Taiwan (NCSR) | Not Determined |
| USA (TSCA) | Not Determined |

16. OTHER INFORMATION

| | |
|------------------------------|---|
| Related Product Codes | GLBATT1000 |
| Revision | 1 |
| Revision Date | 19 Jul 2016 |
| Reason for Issue | New SDS |
| Key/Legend | <p>< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO₂ Carbon Dioxide COD Chemical Oxygen Demand deg C (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°F) Degrees Farenheit g Grams g/cm³ Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH₂O Inch of Water K Kelvin kg Kilogram kg/m³ Kilograms per Cubic Metre lb Pound LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m³ Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m³ Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH₂O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Heath and Safety Commission OECD Organisation for Economic Co-operation and Development Oz Ounce PEL Permissible Exposure Limit Pa Pascal ppb Parts per Billion ppm Parts per Million ppm/2h Parts per Million per 2 Hours ppm/6h Parts per Million per 6 Hours psi Pounds per Square Inch R Rankine RCP Reciprocal Calculation Procedure STEL Short Term Exposure Limit</p> |

TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight