DATE OF ISSUE: NOVEMBER 2004 (REV 3.)

PRODUCTS BASED ON ROCK (STONE) WOOL

STATEMENT OF HAZARDOUS NATURE:

This product is *NOT* classified as hazardous according to the criteria of the National Occupational Health and Safety Commission (NOHSC).

1. GENERAL

1.1 Manufacturer's Name: Roxul Asia Sdn Bhd

175 A & B Kawasan Perindustrian Uhasa

Jalan Lingkungan 75450 Melaka MALAYSIA

(part of the Rockwool International Group)

1.2 Australian Agent: Australasian Insulation Supplies Pty Ltd

56 Cutler Road Jandakot WA 6164

1.3 Trade and Synonyms: Generic Name: Stonewool

Trade Name: Rockwool[®], Roxul[®], and Lapinus[®]

1.4 Manufacturers'

Product Code: See attached list as Annex A

1.5 UN Number: None allocated

1.6 Dangerous Goods Class

and Subsidiary Risk: None allocated

1.7 Hazchem Code: None allocated

1.8 Poisons Schedule

Number: None allocated

1.9 Use: Thermal and acoustic insulation, including fire protection and energy

conservation. Used in homes, public and commercial buildings, warehouses, industrial and petrochemical plants, ships, public transport,

power stations and whitegoods.

2. COMPOSITION INFORMATION ON INGREDIENTS

2.1 Chemical Name	CAS Number	Proportion
Ca-Mg-Al-silicate fiberised bio-soluble rock ⁽¹⁾	-	>96%
Bakelite, a synthetic thermosetting resin	-	< 3%
Refined mineral oil	-	<1%

3. PHYSICAL AND CHEMICAL PROPERTIES

3.1 Appearance: Inert mineral wool mat of compressed fibres resembling wool. It is

supplied in different shapes and sizes wrapped in plastic. It may be rigid or flexible; and facings such as aluminum foil, calico, wire, and

synthetic tissues applied to meet specific purposes.

3.1.1 Odour: Not Applicable

3.1.2 pH (a 1000g/H₂0, 25°C): 7-8 (DIN 54275)

3.1.3 Boiling point: Not Applicable

3.1.4 Melting point: above 1000°C

3.1.5 Flash point: Not Applicable

3.1.6 Flammability: Not Applicable

3.1.7 Autoflammability: Non-flammable (DIN 4102)

3.1.8 Explosive properties: Not Applicable

3.1.9 Oxidizing properties: Not Applicable

3.1.10 Vapor pressure: Not Applicable

3.1.11 Product density: $30 - 200 \text{ kg/m}^3$

3.1.12 Solubility: Not Applicable

3.1.13 Partition coefficient: Not Applicable

3.1.14 Other data: Roxul® Stonewool consists of greater than 85% fibres and less than

15% unfiberised particles (shot) when measured to ASTM C612-93. Fibres are made to a target diameter of 5 microns, being non-respirable fibres. However a small percentage of fibres may fall

outside this range.

3.1.15 Other properties: The fibres and particles are amorphous (non-crystalline). The resin

and refined mineral oils bond the fibres and particles together 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.

4. HEALTH HAZARD INFORMATION

4.1 Stonewool may cause a mechanical reaction to skin in some people,

i.e. itching. High dust levels may cause a reaction to the throat and eyes. Stonewool insulation, once installed, is not a source of dust and does not cause any health effects. Handling, installing or removing the product may result in some stonewool dust, but concurrent exposure to other construction materials and general dusts will also be likely. Users of this product are therefore advised to consider all sources of airborne dust when handling, installing or removing

rock(stone)wool insulations.

Health Effects

4.2 Acute - (Short Term) Possible skin reaction due to exposure to coarse dusts (fibres and

particulates greater than 5.0 micron diameter) with some people

prone to skin sensitivity.

4.3 Swallowed Unlikely under normal conditions of use but may result in a reaction of

the lips and mouth if sufficient quantity is ingested.

4.4 Eye Rock (stone) wool dust, if it gets into the eyes may cause discomfort

resulting in watering and redness.

4.5 Skin Handling rock(stone)wool and its dust may cause a reaction of the

skin resulting in itching and occasionally a red rash. The rash is not

allergic and usually disappears quickly.

4.6 InhaledThe dust, if inhaled in sufficient quantities may cause discomfort of the

nose and throat, especially in those suffering from upper respiratory or

chest complaints such as hay fever, asthma or bronchitis.

4.7 Chronic (Long Term) There are no known long term health effects. Research has shown

that any stone wool particulates inhaled into the lungs dissolve over time in body fluids in the same way as other ambient dusts, and are

then cleared from the lungs.

5. FIRST AID MEASURES

5.1 Swallowed Rinse the lips and mouth with water, give water to drink and seek

medical attention.

5.2 Eye If an eye reaction occurs, do not rub eyes. Flush with flowing water

for at least 15 minutes and if symptoms/irritation persists, seek

medical attention.

5.3 Skin If skin reaction occurs, do not rub or scratch. Rinse under running

water prior to washing with mild soap and water and if itching persists,

seek medical attention.

5.4 Inhaled Remove to fresh air.

5.5 Advice to Doctor Treat symptomatically.

6. PRECAUTIONS FOR USE

6.1 Exposure Standards: None allocated for this product. Rock(stone)wool insulation is not

subject to specific state occupational health and safety regulations.

6.2 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 should be used. If power tools are used, they should be equipped with appropriate dust collection systems. Work areas, if dusty, should

be cleaned by simple hand vacuuming.

6.3 Ventilation:During most applications and installation of this product, no special ventilation is required. However, if a very dusty work environment

exists, normally due to other construction material dusts then local exhaust ventilation should be provided if the general dust level is in excess of 2 mg/m³ (TWA) of inspirable dust.

6.4 Personal Protection:

6.4.1 Skin Protection: Loose comfortable clothing should be worn. It is desirable to avoid

direct skin contact 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).

People working with this product should wash their skin with soap and water at the end of the work shift and at all work breaks.

6.4.2 Eye Protection: Ventilated, non-fogging dust resistant goggles confo

Ventilated, non-fogging dust resistant goggles conforming to Australian and New Zealand Standards AS/NZS 1336 (Recommended practices for occupational eye protection) should be

worn when handling rock(stone)wool overhead.

6.4.3 Respiratory Protection: 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) should be worn whenever personally desired or where it is suspected that dust levels may exceed the National Standard for inspirable dust (use historical monitoring results as a guide for specific

applications) or.

6.4.4 Personal Hygiene: Washing facilities should be available on site to wash the skin and to

treat any dust in the eyes.

6.5 Flammability: Rock(stone)wool is non-combustible and 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.

7. SAFE HANDLING INFORMATION

7.1 Storage and Transport: This product should be stored in its factory packaging until it is used.

Unpack material at application site to avoid unnecessary handling on

product.

This product is not regulated as a dangerous good. No special

transport requirements are necessary.

7.2 Spills and Disposal: Any spilt material due to accidents or off-cuts from insulation should

be cleaned up, and disposed of in accordance with local authority

guidelines.

7.3 Fire/explosion Hazard: Not applicable because rock(stone)wool retards the spread of fire.

7.4 Further Information: According to World Health Organization International Agency for

Research on Cancer, Rock(stone)wool is classified as Group 3, "not classifiable as to its carcinogenicity to humans". Refer IARC Working Group in Man-Made Vitreous Fibres – Volume 81 of the IARC

Monographs, Lyon 9-16, October 2001.

Note (1). Does not cause tumours in long term animal inhalation studies (McConnell, E.E. Kamstrup,O., Musselman, R., Hesterberg,T.W., Chevalier,J., Miiller, W.C., and Thevenaz, P. 1994. Chronic inhalation study of size-separated rock and slag wool insulation fibers in Fischer

344/N Rats Inhal.Toxicol. 6:571-614)

8. CONTACT POINT

For further information on this product please contact Rockwool International Group's agent in Australia:

Australasian Insulation Supplies Pty Ltd

(ABN 25 612 643 993)

56 Cutler Road Jandakot WA 6164

Telephone: (08) 9417 9494 Facsimile: (08) 9417 9595 Email: sales@ais-group.com.au

9. IMPORTANT NOTICE

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ANNEX A - TO MSDS DATED NOVEMBER 2004

PRODUCT CODES AND NAMES FOR ROXUL®, LAPINUS® AND ROCKWOOL®

MATERIALS MARKETED IN AUSTRALIA

Multi Purpose Slab (MPS) 100, 200, 300, 400, 500, 620, 640, 650

Boiler Slab 590
Marine Slab 758
Acoustical Fire Slab AFS

Multi Purpose Blanket (MPB) 100, 200, 300, 400, 500
Wired Mat 160, 164, 159, 168
Rox-Skin Blanket 100, 200, 300, 400,500

Con-Rox L 10, 12, 15;

LS 10, 12, 15

Pipe Block 232

Pipe Insulation 150, 550, 850, 851, C11

Party Wall Fire Stop 1100

Fire Damper Strip

Conlit 756

Conrock Q3, Q5, Q7; 9, 10, 12.5, 15

Roxul Hardrock 60, 80

Roxul Ductwrap

Roxul Rockpipe

Loose Fill 000, 001.512
Cavity Wall Insulation (CWI) ES1, ES2