

Material Safety Data Sheet

MATERIAL SAFETY DATA SHEET

1. Product and company identification:

1.1. GHS product identifier / Name

- Generic name: Stone wool
- Trade name: ROCKINSUL/ TUFFINSUL

1.2 Other means of identification:

Product Information:

- ROCKINSUL Slabs
- ROCKINSUL Slabs with Aluminium foil facing/ALG
- ROCKINSUL Mattress with wire net facing.
- ROCKINSUL Building Rolls.
- ROCKINSUL Pipe Sections
- ROCKINSUL Pipe Sections with Aluminium facing
- ROCKINSUL Loose Wool Fibers
- TUFFINSUL Slabs

1.3 Manufacturer details:

Rockwool India Private Limited
1st floor, Century Building, Rohini layout,
Madhapur, Hyderabad, Telangana India.

1.4 Recommended use of the chemical and restrictions on use: N.A.

1.5 Emergency Phone Number : +91 40 30408650 (HO) : + 91 -9662504756 (Silvassa works) : +91-8451-287511 (Kaveli works)

2. Hazards identification:

2.1 GHS Classification:

Physical Hazards:

- Explosives : Not Applicable
- Flammable gases : Not Applicable
- Oxidizing gases : Not Applicable
- Gases under pressure: Not Applicable
- Flammable liquids : Not Applicable
- Flammable solids : Not Applicable
- Self-reactive substances and mixtures: Not Applicable

- Substances and mixtures which, in contact with water, emit flammable gases: Not classified

- Oxidizing liquids : Not Applicable
- Oxidizing solids : Not Applicable
- Organic peroxides : Not Applicable
- Corrosive to Metals : Not Applicable

Human health hazards:

- Acute Toxicity (Oral) : Classification not possible
- Acute Toxicity (Dermal) : Classification not possible
- Acute Toxicity (Inhalation: Gases) : Not Applicable
- Acute Toxicity (Inhalation: Vapors) : Classification not possible
- Acute Toxicity (Inhalation: Dusts) : Classification not possible
- Acute Toxicity (Inhalation: Mists) : Classification not possible
- Skin corrosion / irritation : Category 3
- Serious eye damage /eye irritation : Category 2A
- Specific target organ-general toxicity: Category 1
- Respiratory sensitization : Classification not possible
- Skin sensitization : Classification not possible
- Germ Cell mutagenicity : Classification not possible
- Carcinogenicity : Not classified
- Reproductive toxicity : Classification not possible
- Aspiration hazard : Classification not possible

Environmental hazards:

- Acute toxicity to the aquatic environment : Classification not possible
- Chronic toxicity to the aquatic environment : Classification not possible

2.2 GHS label element: licensee

Hazard statement:

- Causes mild skin irritation
- Causes serious eye irritation

Precaution:

- Do not breathe dust/fume
- Wash hands thoroughly after handling
- Do not eat, drink or smoke when using this product
- Wear protective gloves/protective clothing/eye protection/ face protection

2.3 Primary routes of entry: Inhalation, skin and eye contact

Inhalation acute:

The release of mineral fibers normal handling may cause short term irritation to the nose and or throat.

Chronic: The internal Agency for Research on Cancer (IARC) has classified mineral wool as a group 3 “not classifiable as to carcinogenicity to humans”.

Skin contact:

Acute: May cause transitory mechanical dermatitis. Skin absorption does not occur.
Chronic: None known

Eye Contact:

Acute: Direct contact will cause mechanical irritation.
Chronic: None known

Ingestion:

Acute: Unlikely to occur under normal conditions of use. If ingested, it may cause temporary irritation to the stomach. Observe individual, if symptom develops, consult a physician.

Chronic: None known.

3. Composition / information on ingredients:

Mineral wool fibers to which binder has been added, which will in the hardening process turn into a thermally stable man made material (Bakelite). Oil is added to make the products water repellent and to reduce the dust release.

Possible decomposition products: None under normal use

	CAS No.	Contents	Classification	R-phrases
Mineral wool : Man made vitreous silicate fibers	None	90-99 %	Xi	Irritating to skin R-38

4. First aid Measures:

- 4.1 Skin: If irritation occurs, do not rub or scratch. Rinse under running water prior to washing with mild soap and water. Frequent washing of skin surface with water to remove accumulated fibers will minimize irritation. If irritation persists consult a physician.
 - 4.2 Throat and eyes: If irritation occurs, flush eyes with water and/or drink water to clear throat. Do not rub the eyes. Consult a physician if irritation persists.
 - 4.3 Inhalation: Remove from exposure. Drink water to clear throat and blow nose to evacuate fibers.
 - 4.4 Ingestion: Product is not intended to ingested or eaten. If this product is ingested, irritation of the gastrointestinal tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion.
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5. Fire fighting measures:

The products are non-combustible and do not pose a fire hazard.

However, packaging and facing material may burn.

- 5.1 Suitable extinguishing media: Water, foam, carbon dioxide or dry powder.
 - 5.2 Combustion products: Carbon dioxide, carbon monoxide and trace gases.
 - 5.3 Special protective equipment for fire-fighters:
 - Ventilation: Use sufficient natural or mechanical ventilation to maintain airborne dust concentration below Threshold Limit Value (TLV).
 - Respiratory Protection: Use a respirator.
 - Eye and Face: Safety glasses, goggles or face shields should be worn when materials are being handled, fabricated or applied especially overhead.
 - General: Wear long sleeved, loose fitting clothing, gloves and head covering. Wash work clothes separately from other clothing to prevent possible mineral wool fiber migration to other clothes. Rinse washer after use.
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6. Accidental release measures:

6.1 Personal precautions and protective equipment:

If product is torn or loose, reseal and minimize fiber release. Personnel directly involved in clean up should wear protective equipment as described in section 8 to prevent skin and eye irritation.

6.2 Emergency Procedures:

Isolate area. Keep unnecessary personnel away. If dry methods or compressed air are used to collect dusts and fibers, all personnel in the area should wear protective equipment as described in Section 8 of this Material Safety Data Sheet.

6.3 Environmental precautions:

Clean area so as to avoid dispersion of any irritant fibers using wet sweep methods or approved micro-filter equipped vacuum cleaner

6.4 Contaminant procedures:

Pick up large pieces and scoop up dusts and fibers after they have settled out of air. These materials will disperse and settle along the bottom of waterways and ponds. It cannot easily be removed once it is waterborne, but is considered non-hazardous in water.

6.5 Cleanup Procedures:

Use OSHA-recommended work practices and protective equipment as described in Section 8 of this Material Safety Data Sheet. Avoid generating airborne dusts and fibers during cleanup. Do not use compressed air. Vacuum dusts and fibers. Place material in an appropriate container for disposal as non-hazardous waste.

7. Handling and Storage:

7.1 Precautions for safe handling :

During initial heat up from 150 °C on the binder begins to volatilise. Slight Smoke and acrid odor may be produced. Adequate ventilation must be provided against fumes. If personnel and fumes are present, all areas and adjacent areas must be well ventilated.

7.2 Handling:

- Unpack material at application site to avoid unnecessary handling of product.
- Keep work areas clean. Dispose of scrap material and debris in suitable containers.
- Spray with water before sweeping or use vacuum equipment.
- Ensure good ventilation. Local exhaust ventilation may be required if the method of use produces dust levels, which exceed the maximum exposure limit. The need for ventilation systems should be evaluated by a professional industrial hygienist while a professional engineer should conduct the design of specific ventilation systems.
- Care should be taken to protect hands when handling metal mesh facings with sharp edges.

7.3 Storage :

- Keep material in original packing until it is to be used
 - Store material to protect against adverse conditions including precipitation
 - Keep material under cover, dry and minimize the generation of dust. Care should be taken to protect faced products from open flames and other sources of ignition.
 - Avoid packaging being stored under UV light (direct sunlight) for long periods.
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8. Exposure controls/ personal protection:

8.1 Occupational Exposure limit :

Follow all applicable exposure limits. Local regulations may apply.

8.2 Engineering controls:

Where feasible, general dilution ventilation or local exhaust ventilation should be used as necessary to maintain exposures below applicable exposure limits. Dust collection

systems should be used in cutting or machining operations and may be needed when using power tools.

8.3 Personal protective equipment:

8.3.1 General:

In poorly ventilated areas when dusty conditions exist and / or dust levels exceed applicable exposure limits, wear a NIOSH certified dust respirator with efficiency rating of N95 or higher. Use disposable face masks complying with NIOSH respirator standards, such as a 3M Model 8210 (or 8710) (3M model in high humidity environments) or equivalent. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g. MSA's DM-11, Racal's Delta N95, 3M's 8210) rated N95 or higher. For exposures up to 50 times the established exposure limits use a full-face respirator, rated N99 or higher

8.3.2 Specific Operations:

In poorly ventilated areas when dusty conditions exist and / or dust levels exceed applicable exposure limits, wear a NIOSH certified dust respirator with an efficiency rating of N95 or higher, such as a 3M Model 8210 (or 8710) (3M Model 9900 in high humidity environments) or equivalent, when fabricating, installing and removing product.

8.3.3 Skin Protection :

Direct skin contact can be minimized by wearing normal work clothing. Wear loose fitting, long sleeved and long-legged clothing to prevent irritation. A head cover is also recommended, especially when working with material overhead. The use of suitable gloves is also recommended. Skin irritation cannot occur if there is no contact with the skin. Do not tape sleeves or pants at wrists or ankles. Remove fibers from the work clothes, before leaving work to reduce potential skin irritation. If working in a very dusty environment it is advisable to shower and change clothes.

8.3.4 Eyes/ Face protection:

Wear safety goggles or safety glasses with side shields.

9 . Physical and Chemical properties:

9.1 Appearance: solid, slight yellowish. Some products have aluminium foil, kraft paper laminate, glass mat or metal mesh facing.

9.2 Odor: no appreciable odor

9.3 Odor threshold: N.A.

9.4 pH (a 1000g/H₂O, 25°C):

9.5 Initial boiling point: N.A.

9.6 Boiling Range : N.A.

9.7 Melting point: above 1000°C

9.8 Flash point: N.A.

9.9 Evaporation rate: N.A.

9.10 Flammability: N.A.

9.11 Autoflammability: inflammable

9.12 Explosive properties: No unusual fire and explosion hazards.

However, paper and foil facings of some products can burn. Special care should be taken when working close to facings with any type of open flame.

9.13 Oxidizing properties: N.A.

9.14 Vapor pressure: N.A.

9.15 Vapor density: N.A.

- 9.16 Product density: 40 - 200 kg/m³
9.17 Solubility: N.A.
9.18 Partition coefficient: N.A.
9.19 Auto-ignition temperature: N.A.
9.20 Decomposition temperature: N.A.
9.21 Other data: N.A.
(N.A. = Not Applicable).
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10 . Stability and reactivity:

10.1 Chemical Stability:

No reported incompatibilities, however resin binders may be attacked by acidic, alkaline or solvent based substances. The cured resin is stable and will remain intact for the life of the product under normal atmospheric conditions.

10.2 Reactivity:

Aluminium foil may chemically react to high pH materials such as uncured Portland cement with the presence of water. Facing, adhesive and binder burns or decomposes to carbon monoxide, carbon dioxide, carbon particulates and water. From 150 °C on the binder begins to volatilise.

10.3 Possibility of hazardous reactions: None known

10.4 Conditions to avoid: None known

10.5 Incompatible materials: This product reacts with hydrofluoric acid

10.6 Hazardous decomposition products: None known

10.7 Hazardous polymerization: Will not occur

11. Toxicological information

11.1 Acute Toxicity:

Coarse fibers can cause itching of the skin, foreign body reaction in the upper respiratory system (mucous membranes) and in the eyes. The itching and possible inflammation are a mechanical reaction to the coarse fibers (of more than about 5 μm in diameter) and are not damaging in the way chemical irritants may be. They generally abate within a short time after the end of exposure. When products are handled continually, the skin itching generally diminishes.

11.2 Chronic Toxicity:

According to IARC rock (stone) wool is classified as Group 3, "not classifiable as to its carcinogenicity to humans". (In October 2001, the International Agency for Research on Cancer "IARC", part of the World Health Organization reviewed its 1987 classification of mineral wool fibers and removed them from the list of possible carcinogens).

12 . Ecological information

12.1 Ecotoxicity:

Neither the raw materials used nor the finished product contain any ozone depleting chemicals. This product is not classified as a hazardous air pollutant. Binder-coated stone wool is hydrophobic, and no adverse environmental effects would be expected if accidentally released in the water or soil. No harm to fish or wildlife would be caused by this product

13 Disposal considerations

13.1 Disposal instructions:

Product is not considered as a hazardous waste. Place in sealed, appropriately labeled plastic bags and dispose of in accordance with local authority guidelines. Clean area with micro equipped vacuum or wet sweep. Any waste material should be cleaned up and disposed of in accordance with local authority guidelines. Use protective equipment as described in Section 8 when handling uncontained material.

13.2 Disposal of any contaminated packaging:

Container should be recycled after cleaning or if would like to dispose of container, properly dispose of this according to related legislations and local regulations.

14 Transport information:

14.1 General: No special precautions.

14.2 UN Number : None allocated

14.3 UN proper shipping Name : None allocated

14.4 Transport Hazard Class : None allocated

14.5 Packaging group : None allocated

14.6 Marine Pollutant : No

14.7 Transport Requirement :

Stone wool insulation is not regulated as dangerous good. No special transport requirements are necessary.

15 . Regulatory Information

15.1 Classification:

Classified as Non hazardous according to state regulations

16. Other Information

Date Issued	: 1 st December 200
Revision 1	: Dated 03 rd October 2011
Revision 2	: Dated 04 th January 2012
Revision3	: Dated 20 th October 2014
Revision 4	: Dated 2 nd Feb 2016

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