1. Identification of the mixture and of the company/undertaking

1.1 Product identifier
Trade name: Insulation Board Adhesive

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Identified uses: Recommended for the fixing mineral wool boards on building substrates, indoors and outdoors, in ROCKWOOL® insulation systems

1.2.2 The uses advised against: No data available

Product type: Adhesive for fixing mineral wool boards

1.3 Details of the supplier of the safety data sheet
ROCKWOOL®, Pencoed, Bridgend, CF35 6NY
REACH registration number 01-2119472313-44
ROCKWOOL Ltd Technical Support Department 9am-5pm
Tel: +44 (0)871 222 1780 Email: SDS@rockwool.com

2. Hazards identification

2.1 Classification of the substance or mixture
Product classified as hazardous.

The classification is compliant with Regulation (EC) 1272/2008, Directive 1999/45/EC and binding laws (Section 15, items 4, 12, 13, 15).

Threat to human life:
- contains cement, may irritate respiratory tract. As a result of contact with water, may form a strong alkaline environment. Wet cement may irritate skin and eyes. Due to content of soluble Cr (VI), allergic reactions may appear.
- contains calcium hydroxide – may severely damage eyes. While pouring, may produce dust.

R36/37/38  Wear suitable protective clothing. Wear suitable gloves. In case of insufficient ventilation, wear suitable respiratory equipment.

R43  May cause sensitization by skin contact
R41  Risk of serious damage to eyes

2.2 Label elements
Labelled according to Regulation [EC] 1272/2008, Directive 1999/45/EC and binding laws [Section 15, items 4, 12, 13, 15].

All works with this product need to be performed in compliance with Section IV, Chapter 6, letter d of Regulation of the Minister of Labour and Social Policy of 26 September 1997 on general occupational health and safety provisions (Dz.U. Journal of Laws of 2003 No 169, item 1650) with further amendments.

All unit packings require warning labels.

Marks and precaution labels:
Introduced by the time the Classification, Labelling and Packaging Procedure is implemented.

Xi  Irritant

Contains: Portland cement. May cause allergic reaction.

R36/37/38  Wear suitable protective clothing. Wear suitable gloves. In case of insufficient ventilation, wear suitable respiratory equipment.

R43  May cause sensitization by skin contact
R41  Risk of serious damage to eyes

Safety phrases:
S1/2  Keep locked up and out of the reach of children.
S2  Keep out of the reach of children.
S22  Do not breathe dust.
S24/25  Avoid contact with skin and eyes
S26  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28  After contact with skin, wash immediately with plenty of water.
S36/37/39  Wear suitable protective clothing, gloves and eye/face protection
S45  In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46  If swallowed, seek medical advice immediately and show this container or label
S51  Use only in well-ventilated areas.
S61  Avoid release to the environment. Refer to special instructions/Safety data sheets.

2.3 Other hazards
No data available
Insulation Board Adhesive

3. Composition/information on ingredients

3.1 Substances
Not applicable

3.2 Mixtures
Composition: Dry mixture of inorganic binding agent – Portland cement and inorganic fillers, reacting with water and self-hardening.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Calcium hydroxide</th>
<th>Portland cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC No</td>
<td>215-137-3</td>
<td>266-04304</td>
</tr>
<tr>
<td>CAS No</td>
<td>1305-62-0</td>
<td>65997-15-1</td>
</tr>
<tr>
<td>% in the product</td>
<td>&gt;1&lt;5</td>
<td>&gt;1&lt;50</td>
</tr>
</tbody>
</table>

The product contains cement. The contents of Cr VI in hydrated form is less than 2ppm as calculated for dry solid.

4. First aid measures

4.1 Description of first aid measures

General recommendations: the notes concerning safety and use provided on the label must be observed. In first aid help, no special personal precautions are required. Avoid contact with wet cement and mixtures containing cement. Should the symptoms occur or if in doubt, consult a doctor. If unconscious, do not provide any foods or liquids.

Contamination of respiratory tract: remove the victim into fresh air area and observe. Ensure calm and warmth. Consult a physician. Contact a physician in case of permanent irritation or further symptoms of discomfort (cough).

Ingestion: If the victim is conscious, flush mouth with water (do not swallow), drink plenty of water. Do not induce vomiting! Call a physician, show packaging or label.

Contact with skin: Remove dry cement. Rinse the wet cement with plenty of water. Immediately remove contaminated clothing and shoes. IMMEDIATELY take a shower. Rinse affected skin areas with plenty of water and soap. Wash contaminated clothing before reuse. In case of irritation, seek medical advice.

Contact with eyes: do not rub eyes, bend head in the direction of affected eye, open the eyelids wide and rinse abundantly with plenty of water (20 min) to remove all contamination. If available, use isotonic water [0.9% NaCl]. Protect the unaffected eye, remove contact lenses. Immediately call an ophthalmologist.

4.2 Most important symptoms and effects, both acute and delayed
Dusts of the product may irritate skin and respiratory track and may cause severe eye injuries.

4.3 Indication of any immediate medical attention and special treatment needed

Eyes: Dusts of the product may cause severe and potentially irreversible injuries to eyes. They cause irritation of eye mucous manifested by eye redness and eye watering. The product, if As a result of contact with water, may form a strong alkaline environment.

Skin: in case of prolonged contact with skin, an irritating effect on moist skin may occur. If prolonged, the following may occur: allergic reaction, irritation, inflammations, burns.

Respiratory tract: prolonged contact with respiratory tract may increase the risk of respiratory diseases.

5. Firefighting measures

5.1 Extinguishing media
Cement is not flammable. Extinguish the fire with means proper for the fire cause.

Suitable extinguishing media: dry-powder extinguisher, foam, C02.

Unsuitable extinguishing media: do not use water

5.2 Special hazards arising from the substance or mixture
The product itself is not flammable, it does not trigger or maintain the combustion of other materials.

5.3 Advice for firefighters
Only well-qualified and equipped personnel may take part in rescue service. Bystanders and unauthorized personnel shall be removed from the hazard area. You may not be present in fire-hazard area without clothing resistant to chemicals and breathing apparatus with separate, indispensable air circulation. Do not allow the product to enter ground waters or surface waters.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Prevent dust formation. Do not inhale the dust. Ensure good ventilation in working environment. Avoid contact with skin and eyes. Use suitable protective clothing, gloves and goggles. Bystanders and unauthorized personnel shall not be allowed. Prevent product spill. Follow local regulations concerning accident handling procedures.

6.2 Environmental precautions
Prevent the product from entering into sewage system, drains, ground waters or surface waters. Notify relevant authorities and chemical rescue service in case of considerable contamination of surface and ground waters. Follow local regulations concerning accident handling procedures. See also Section 13.
Insulation Board Adhesive

6. Accidental release measures continued

6.3 Methods and materials for containment and cleaning up
If possible, collect the spread material in dry condition. Use dust-free, dry methods to clean. Do not use compressed air. In case of removal of dry product, the personnel should be equipped with personal protective clothing. Avoid inhaling the cement dust and avoid contact with skin. Collect dispersed dust for removal. Clean the affected area. Prevent from moistening. Large amounts of dry and hardened product remove according to local regulations. Tighten damaged packages.

6.4 Reference to other sections
Sections 8 – 13 - Exposure controls and personal protection, disposal considerations.

7. Handling and storage

7.1 Precautions for safe handling
Prevent dust formation. Comply with the occupational safety and health regulations. Avoid contact with skin and eyes, use according to recommendations, do not eat or drink when using this product. Wash hands during breaks and after work. Do not sweep the product and apply dust-free methods to clean the product. Detailed information on application of the product is provided in technical data sheet MSDS. Follow guidance detailed in Section 6 and 8.

7.2 Conditions for safe storage, including any incompatibilities
Keep in a separate, well-ventilated room, in original, tightly closed packaging at +5 °C to +35 °C. Do not use common metal packaging.

7.3 Specific end use(s)
None

8. Exposure controls/Personal protection

8.1 Control parameters
Monitoring procedures for concentrations of hazardous components in the air and the procedures for air purity control at workplace should be used – if available and reasonable at a particular workplace – in accordance with appropriate Polish or European Standards considering conditions at the exposure site and appropriate measurement methods adapted to the working conditions. The procedure, type and frequency of tests and measurements should meet the requirements of Regulation of the Ministry of Health of 2 February 2011 [Journal of Laws Dz.U No. 33, item 166]. Methods for the assessment of exposure to chemical agents by respiratory track are specified in European Standard PN-EN-689:2002: Workplace atmospheres – guidance for the assessment of exposure to chemical agents for comparison with limit values and measurement strategy”. Hygienic standards for work environment are presented in Regulation of Minister of Labour and Social Policy of 29 November 2002 on occupational exposure limit values [Journal of Laws Dz.U. No. 217, item 1833, with further amendments].

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Harmful agent</th>
<th>NDS (TLV-TWA, Poland)</th>
<th>Value mg/m³</th>
<th>NDSCh/NDSP (TLV-STEL/TLV-Ceiling, Poland)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65997-15-1</td>
<td>Portland Cement Clinker</td>
<td>Total dust</td>
<td>6</td>
<td>not determined</td>
</tr>
<tr>
<td>65997-15-1</td>
<td>Portland Cement Clinker</td>
<td>Respirable dust</td>
<td>2</td>
<td>not determined</td>
</tr>
<tr>
<td>1305-62-0</td>
<td>Calcium hydroxide</td>
<td></td>
<td>2</td>
<td>not determined</td>
</tr>
</tbody>
</table>

The product contains cement. The contents of Cr VI in hydrated form is less than 2ppm as calculated for dry solid.

8.2 Exposure controls
Observe health and safety regulations. Follow guidances for safe working environment. Ensure the concentration of the dust at the workplace and workpost is maintained lower than NDS values.

Physical control measures: use general room ventilation and local ventilation.

General recommendations: Do not eat or drink when using this product. Wash hands during breaks and after work. IMMEDIATELY take a shower. Immediately remove contaminated clothing and shoes. Rinse affected skin areas with plenty of water and soap. Wash contaminated clothing before reuse. Use moisturizing hand creams.

Personal protective equipment: During work, wear long-sleeved clothes and trousers with tight bands. Wear shoes resistant to caustic agents and protecting against dust penetration.

Respiratory protection: use proper means to protect respiratory tract, adjusted to dust concentration level in the air and relevant standards.

Eye protection: tight protective goggles - impermeable and resistant to alcalic environment {made of material with low level of soluble Cr [VI], with cotton filling}.

Legs protection: protective shoes resistant to caustic agents.

Hand protection: Protective gloves, impermeable and resistant to alcalic environment.

The gloves should be made of an impermeable material resistant to the product. The glove material should be selected considering the breakthrough time, permeation rate and degradation. Furthermore, the selection of the suitable gloves does not only depend on the material, but also on other quality parameters and depends on the specific manufacturer. The exact breakthrough time has to be determined by the manufacturer of the protective gloves and should be observed. Individual protection measures used should meet the requirements of the Regulation of the Minister of Economy of 28 December 2005 [Journal of Laws Dz.U. No 259, item 2173] and Directive 89/686/EC (as amended). The employer is obliged to provide protective measures adequate for the performed activities meeting all quality requirements, including maintenance and cleaning.
Insulation Board Adhesive

8. Exposure controls continued

Environmental exposure controls: Do not allow the product to enter sewage systems, drains, waste water or ground. All spillages to water shall be notified to relevant local environmental authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Grey granulated powder</td>
</tr>
<tr>
<td>Odour</td>
<td>Raw</td>
</tr>
<tr>
<td>pH (25°C)</td>
<td>Ca. 13, when mixed with water</td>
</tr>
<tr>
<td>Boiling point/range (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure (20°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Bulk density (g/dm³)</td>
<td>1.6-1.8</td>
</tr>
<tr>
<td>Specific gravity (g/dm³)</td>
<td>1.6-1.8</td>
</tr>
<tr>
<td>Water dilutability (25°C)</td>
<td>Very good diluant</td>
</tr>
</tbody>
</table>

9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity
As a result of mixing with water, cement hardens to a stable form. The form is not reactive in normal conditions. Calcium hydroxide reacts with carbon monoxide and forms calcium carbonate.

10.2 Chemical stability
Product is stable in normal conditions. Wet cement is alkaline, incompitant with acids, ammonium salts, aluminium and other common metals. Cement is dissolved in hydrofluoric acid to produce corrosive gas [silicon tetrafluoride]. Cement reacts with water to form silicates and calcium hydroxide.

10.3 Possibility of hazardous reactions
Calcium hydroxide reacts exothermically with acids.

10.4 Conditions to avoid
Protect against overheating, direct sunlight and freezing. Application temperature: 5DC ~ 25DC. Avoid storage beyond allowed temperature range. Protect against moisture and strong acids, do not allow to freeze; reacts with water and hardens.

10.5 Incompatible materials
Acids, hydrogen sulphide, ammonium salts, common metals.

10.6 Hazardous decomposition products
If properly used as indicated, no hazardous reactions or hazardous decomposition products are expected.

11. Toxicological information

11.1 Information on toxicological effects
The product shows slightly alkaline reaction. Irritating to skin. Notorious exposure of skin to a mixture of cement and water may cause burns. The effect may be even more harmful in case of contact with dry and chapped skin. Corrosive effect if contacted with moisture [sweat]. May cause eye irritation. Dry product or remnants mixed with water may cause eye burns.

May cause irritation of respiratory tract and mucous membrane.

If swallowed, may irritate digestive tract.

12. Ecological information

12.1 Toxicty
No experimental study results of the product are available. According to information provided by the manufacturer, the product is not toxic to the environment. For the permissible air concentrations, refer to the Regulation of the Minister of Environment of 25 January 2010 on reference values for some substances in the air [Dz.U. Journal of Laws No 16, item 87]. Chromium hexavalent [sum of metal and its compounds in suspended particulate PM10].

60 min concentration – 4.6 μg/m³ [standardized value for measurement purposes only]. Mean annual concentration – 0.4 μg/m³

Chromium – tri- and tetravalent compounds [sum of metal and its compounds in suspended particulate PM10].

60 min concentration – 20 μg/m³ [standardized value for measurement purposes only]. Mean annual concentration – 2.5 μg/m³

For the highest permissible values for indicators of pollution in sewage discharged to water and soil, refer to the Regulation of the Minister of Environment of 24 July 2006 on conditions to be met by discharging sewage to water and soil and on substances particularly harmful to aquatic environment [Dz.U. Journal of Laws of 2006 No 137, item 984].

12.2 Persistence and degradability
Stable in normal conditions.

12.3 Bioaccumulative potential
Not applicable

12.4 Mobility in soil
Not applicable

12.5 Result of PBT and vPvB Assessment
Not applicable

12.6 Other adverse effects
Not applicable
13. Disposal considerations

13.1 Waste treatment methods

**Product:** Must be subject to special treatment according to official regulations – the product must be transferred to an authorized hazardous waste collector. The material can be disposed by controlled incineration in accordance with local, national law, in systems intended for this particular purpose. Do not allow the product to enter sewage system or other water waste and open tanks.

**Recommendations for the product:** Collect remnants and store in original packagings. Utilize in accordance with local regulations.

**Waste product name and code:** 17 09 04 - mixed waste from construction and demolition other than those mentioned in 17 09 01, 17 09 02 and 17 09 03. According to Dz. U Journal of Laws of 2001 No. 112, item 1206.

**Recommendations for utilized packaging:** Only emptied bags may be returned to reuse.

**Waste packaging code and name:** 15 01 01 – paper and cardboard packaging

14. Transport information

14.1 UN number
Not applicable

14.2 UN proper shipping name
Not applicable

14.3 Transport hazard class(es)
Not applicable

14.4 Packing group
Not applicable

14.5 Environmental hazards
Not applicable

14.6 Special precautions for user
Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

The product is not classified as dangerous as per transport regulations; it is not subject to transport classification and labelling.

The product does not present any hazard to transport when shipped in the original packaging. Transport temperature above +5°C.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture


15. Regulatory information continued


16. Regulation of Minister of Health of 2 February 2011 on tests and measurements of agents harmful to health in the working environment (Dz. U. Journal of Laws of 2011, No. 33, item 166).
27. Regulation of Minister of Health of 30 December 2004 on safety and hygiene standards applicable to chemical agents at working environment (Dz. U. Journal of Laws of 2005 No. 11, item 86).
29. Regulation of Minister of Environment of 24 July 2006 on conditions to be met for the introduction of sewage into the water or soil, and on substances particularly harmful to the aquatic environment (Dz. U. Journal of Laws of 2006 No. 137, item 984).
31. Regulation of Minister of Inferior and Administration of 7 June 2010 on fire protection of buildings, other objects and areas (Dz. U. Journal of Laws of 2010 No. 109, item 719).
Insulation Board Adhesive

15. Regulatory information continued

35. PN-Z-04008-7:2002: „Principles for collecting air samples in working environment and interpretation of results “.

15.2 Chemical safety assessment

Not available for the mixture

16. Other information

Safety phrases (S-Phrases):
S1/2  Keep locked up and out of the reach of children.
S2   Keep out of the reach of children.
S22  Do not breathe dust.
S24/25 Avoid contact with skin and eyes
S26  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28  After contact with skin, wash immediately with plenty of water.
S29  Do not empty into drains.
S36/37/39 Wear suitable protective clothing. Wear suitable gloves. In case of insufficient ventilation, wear suitable respiratory equipment.
S45  In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46  If swallowed, seek medical advice immediately and show this container or label
S51  Use only in well-ventilated areas.
S61  Avoid release to the environment. Refer to special instructions/Safety data sheets.

Other indications: none

Risk phrases (R-Phrases):
R36/37/38 Irritating to eyes, respiratory system and skin
R41  Risk of serious damage to eyes
R43  May cause sensitization by skin contact

Other indications: Xi – irritant

Other information: this issue of the MSDS cancels all previous issues.

Scope of amendment: this issue includes the amendment of legal grounds, graphical layout and some substantive amendments.

Statement of manufacturer

This Safety Data Sheet has been prepared in accordance with European Commission Regulation (EU) No 453/2010 [REACH].

This data sheet does not constitute a workplace assessment. The information provided represents the state of our knowledge regarding this material at the date of its publication.

The information provided does not constitute a product specification and no warranty expressed or implied is hereby made.

The information relates only to the specific material designated when used in applications it has been designed for. This information may not be valid for such material used in combination with any other materials or in any other processes, unless specified in the text.