

+44 (0) 1248 600 656

www.welshslate.com

enquiries@welshslate.com

Penrhyn Quarry, Bethesda, Bangor,
Gwynedd LL57 4YG, United Kingdom



Slate Material Safety Data Sheet

SECTION 1. Identification of the Substance / Mixture and of the Company / Undertaking

1.1 Product Identifier

Substance Name Slate

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

Identified Uses Manufacture of products to include Roofing Slate, Crushed Slate products, Architectural and Landscaping products.

Uses advised against No specific uses advised against are identified

1.3 Details of the supplier of the safety data sheet

Supplier Breedon Group
Welsh Slate
Penrhyn Quarry
Bethesda
Gwynedd
LL57 4YG
+44 (0)1248 600656
enquiries@welshslate.com

1.4 Emergency Telephone Number

Emergency Telephone +44 (0)1332694010

Opening Hours Mon – Fri, 9am to 5pm GMT

Other Comments Phone service language – English

2. Hazards Identification

2.1 Classification of the substance or mixture

General Slate is not classified under CLP but RCS / Quartz which it contains is and during handling in certain forms and from its processing where the respirable element is released then RCS (fine form) can present a greater hazard.

Quartz (SiO₂) which is present in RCS and classified under the CLP therefore information relating to Quartz specifically is detailed below due to varying amounts of this mineral present in slate.
Classified at STOT RE 1

2.2 Label elements

Hazard Pictogram



Signal Word

DANGER

Hazard Statements

H372 – Causes Damage to Lung through prolonged or repeated exposure by inhalation

Precautionary phrases

P260 - Do not breathe dust
P285 - In case of insufficient ventilation wear suitable respiratory protection
P501 - Dispose of in accordance with local regulation

2.3 Other Hazards

This substance does not present any other hazards

SECTION 3. Composition / Information on Ingredients

3.1 Substance

General

Slate contains Respirable Crystalline Silica of varying quantities dependent on where the slate mineral deposit is produced. Quartz (SiO₂) as previously mentioned is present but amounts can vary

Product Name

Quartz (SiO₂)

Reach Reg No

N/A

CAS Number

14808-60-7

EC Number

238-455-4

3.2 Mixtures

Not Applicable

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures

General	Seek medical attention if feeling unwell. Refer to this SDS for guidance.
Inhalation	Remove patient to fresh air and seek medical advice
Skin contact	Wash skin with soap and water. For cuts and abrasions; clean with water and apply sterile dressing if required.
Eye contact	Wash out with clean water and seek medical attention if required.
Following Ingestion	Wash out mouth with clean water and give patient water to drink.
First Aider Self Protection	First Aiders should wear appropriate PPE, where risk of airborne particles then RPE & Eye protection to be worn.

4.2 Most Important symptoms and effects

Inhalation	If any respirable dust produced whilst working with slate is inhaled in excessive quantities over a long period (years), it may create a long-term health hazard.
Skin contact	May cause skin irritation e.g. redness, eczema. Can cause cuts and abrasions.
Contact with eyes	May cause eye irritation.

SECTION 5. Firefighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media Not Applicable

Unsuitable Extinguishing Media Not Applicable

5.2 Special Hazards arising from the substance or mixture

Specific Hazards None known

Hazardous Combustion Products None Known

5.3 Advice for Firefighters

General Prevent run off water from entering watercourses by controlling.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Use appropriate protective clothing (See section 8).

6.2 Environmental precautions

Environmental precautions Do not let slate fines enter the local water course, any run off should be contained.

6.3 Method for clearing up

Method of cleaning up on ground Dowse with water to reduce respirable dust and ensure environmental precautions are implemented.

Method of cleaning up in water Inform the appropriate regulatory and local authority.

6.4 Reference to other sections

Reference to other Sections See Sections 8 and 13 for additional information

SECTION 7. Handling and Storage

7.1 Precautions for safe handling

Usage precautions Follow product manufacturers instructions and wear Protective clothing as described in section 8 depending on product type. In Crushed form contain where possible, minimize airborne dust.

Advice on general Occupational hygiene Wash off any residue on skin. Remove contaminated clothing and wash. Do not drink or eat when using this product and change work clothing before leaving workplace.

7.2 Conditions for safe storage

Storage precautions In crushed form then prevent airborne dust by containment or dust suppression

Storage Class Unspecified storage

7.3 Specific end use(s)

Specific end use(s) Products listed in section 1 or as component material.

SECTION 8. Exposure Controls / Personal Protection

8.1 Occupational Exposure Limits

Occupational Exposure Limits

Respirable crystalline silica (RCS) has a maximum exposure limit of 0.1mg/m³ per 8-hour Time Weighted Average.

All dusts have a Respirable Occupational Exposure Standard of 4mg/m³ and an Inhalable Occupational Exposure Standard of 10mg/m³ per 8-hour Time Weighted Average.

8.2 Exposure Controls

Protective equipment



Engineering measures to reduce exposure

When working slate such as by dry drilling, cutting etc. the working area and methods should be designed to incorporate a Local Exhaust Ventilation (LEV) system.

Eye protection

Eye protection should be dust tight type to BS EN 166 with crushed slate products containing fines.

Skin – Hand protection

Protective gloves should be worn. Cut proof Level 5 when handling sharp slate pieces

Skin – Other

Suitable protective clothing to prevent contact with skin

Respiratory protection

Respiratory protection should be suitable for hazardous dusts in accordance with HSE publication HSG 53.

Environmental Exposure Controls

See Section 6

SECTION 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

State	Solid
Colour	Blue, Grey, Plum, Green as natural Product. Can be coated in smaller particulate size products.
Odour	None
Odour threshold	Not relevant
Flash Point	Not relevant
Flammability	Not relevant
Evaporation Rate	Not relevant
Evaporation Factor	Not relevant
Vapour Pressure	Not relevant
Vapour Density	Not relevant
Ph	8.7
Boiling Point (°C)	Not applicable.
Melting / decomposition temp (°C):	Not applicable.
Density (kg/m³):	2860kg/m ³
Solubility in water (weight-%)	Non-soluble.
Solubility in organic solvents	Non-soluble.
Auto ignition Temperature	No information available
Decomposition Temperature	No information available
Explosive Properties	No information available

SECTION 10. Stability and reactivity

10.1 Reactivity

Reactivity Inert, Not Reactive

10.2 Chemical stability

Stability Stable under all known conditions

10.3 Possibility of Hazardous reactions

Possibility of hazardous No potentially hazardous reactions known

10.4 Conditions to avoid

Conditions to avoid None known

10.5 Incompatible materials

Materials to avoid No known materials to avoid

10.6 Hazardous decomposition products

Hazardous decomposition products: None known

SECTION 11. Toxicological information

Acute toxicity - oral Notes (oral LD₅₀). Based on available data the classification criteria are not met

Acute toxicity – dermal Notes (dermal LD₅₀). Based on available data the classification criteria are not met

Acute toxicity – Inhalation Notes (inhalation LC₅₀) Based on available data the classification criteria are not met

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage / irritation Not irritating to Eye (OECD TG 405)

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity Genotoxicity - in vitro. Respirable Quartz unable to increased HPRT mutations in rat lung epithelial cells In vitro.

Carcinogenicity	Lung Cancer excess risk is demonstrated only under high occupational exposures to RCS. The lung cancer excess risk is restricted to subjects who contracted Silicosis.
IARC carcinogenicity	Studies concluded RCS inhaled can cause cancer – Carcinogen Cat 1
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity – single exposure	
STOT - single exposure	Studies available, Inconclusive.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Product contains Quartz (fine fraction) and is classified as STOT RE 1
Aspiration hazard	Not relevant.
General information	Prolonged exposure to Respirable Crystalline Silica (RCS) slate dust may cause silicosis. Long-term exposure to high levels of RCS dust can also lead to an increased risk of developing lung cancer. If the dust given off from working with slate is fine enough to breathe into the lungs through the nose and mouth this is termed “respirable”. Once it is breathed in, RCS dust can be retained in the lungs for many years.
Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	No specific symptoms known.
Route of exposure	Inhalation, Ingestion
Target organs	Lungs

SECTION 12. Ecological information

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This material is an inorganic substance and does not meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

General Information Minimise generation of waste, Reuse / Recycle wherever possible.

Disposal Methods Dispose of waste in line with relevant Waste legislation (Not classed as Hazardous Waste). Contain waste of finer particle size and do not allow disposal in or near watercourses.

SECTION 14. Transport Information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1 UN Number

Not applicable

14.2 UN proper shipping name

Not applicable

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14.3 Transport hazard class(es)

No transport warning sign required

14.4 Packing group

Not applicable

14.5 Environmental hazards

**Environmentally hazardous
Substance / marine pollutant** No

14.6 Special Precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

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

SECTION 15. Regulatory information

15.1 Safety, Health and Environmental regulations / legislation specific for the substance / mixture

National regulations Health and Safety at Work etc. Act 1974
UK Registration, Evaluation, Authorisation & restriction of Chemicals (REACH)
Control of Substances Hazardous to Health Regs 2002 (as amended)
EH40/2005 Workplace Exposure Limits (4th Edition – Jan 2020)

EU legislation Regulation (EC) No 1907/2006 of the EU (REACH)
Regulation (EC) No 1272/2008 of the EU (CLP)

15.2 Chemical safety assessment

No chemical safety assessment undertaken

Inventories

Not listed as exempt

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SECTION 16. Other Information

General	Other information: Dry dust from natural slate is a substance hazardous to health and requires employers to carry out an assessment of risk in accordance with the COSHH Regulations 2002.
Abbreviations	DNEL: Derived No Effect Level. DMEL: Derived Minimal Effect Level. PNEC: Predicted No Effect Concentration. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. RID: European agreement re the Int carriage of dangerous goods by rail RCS: Respirable Crystalline Silica WEL: Workplace Exposure Limit STEL: Short Term Exposure Limit
SDS Status	Approved
SDS Reference	BPWS 101

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

This company shall not be held liable for any harm or damage resulting from handling or from contact with the above products.