



Unit 31, Nutham Lane
Southwater
West Sussex RH13 9GG
Tel/fax: 01403 732186
e-mail: info@greenroofsubstrates.co.uk

Green Roof Substrates Limited

www.greenroofsubstrates.co.uk

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SAFETY INFORMATION

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product name: Shire Green Roof Substrates, including Extensive, Intensive, Biodiversity and Ultralite Substrates.

Description of Product: Blends of materials of mainly secondary origin sourced from reputable sources where sufficient traceability exists to show that the materials are non-hazardous and can be used without the need for special licenses for handling transport or use.

Use of the Product: Main applications – non-exhaustive list: Green roof substrates and supply of crushed secondary aggregates for decorative use and drainage layer.

Company name: Shire Green Roof Substrates Limited

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical: Essentially these are recycled building materials blended with secondary compost and other recycled raw materials such as medium clay soil. Depending on the substrate type the main constituents may be crushed house brick, crushed aircrete, fired clay pellets, crushed concrete, pine bark and green waste compost, and recycled soil. Compositions may contain any building materials found in construction.

Please refer to specific data sheets for composition of each substrate type (www.greenroofsubstrates.co.uk).

The substrates may also contain minor amounts of contaminants such as, glass, plastics, metals, paper, wood, cloth and other materials that may be found in construction. All raw materials are sourced from reputable Company's that are accredited for the supply of secondary under current European Waste Management and supply regulations. The compositions may contain minor amounts of powdered quartz.

CAS Numbers: Quartz 14808-60-7

3. HAZARDS IDENTIFICATION

Main Hazards: No significant hazard, however coarser substrates can contain odd fragments with sharp edges, and overspill areas of thin substrate can present a slip or trip hazard.

Manual handling assessments should always be carried out with regard to any form of manual carrying of the substrate.

Risk assessment should consider the possibility of big bags being hoisted to a roof by crane presenting a physical hazard to workforce and should only be placed on the roof in areas where the roof can take the weight of the big bag.

4. FIRST AID MEASURES

Skin contact: Although generally harmless some contents may cause allergic reactions and direct physical contact with the skin could result in abrasion of the skin and potentially cuts. Any cut should immediately be treated by a qualified first aider or physician and the possibility of harmful microorganisms should be considered.

Eye Contact: May cause mild to severe irritation by abrasion with aggregate and fines content. Bathe the eye immediately with copious amounts of running water for at least 15 minutes. Eyelids to be held open. If irritation persists seek medical advice.

Ingestion: Non-toxic. Wash out mouth with water. Swallowing large quantities of substrate will cause physical discomfort and potential damage. In the event of this happening seek medical attention.

Inhalation: In dry conditions dust may form and excessive exposure to this could cause irritation of mucous membranes. Move casualty to fresh air ensuring one's own safety and consult a physician.



5. FIRE-FIGHTING MEASURES

Extinguishing media: Substrate is non-combustible and does not present an explosion hazard. Extinguish surrounding fire with appropriate extinguishing media.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid airborne dust creation. In the case of exposure to airborne dust concentrations exceeding regulatory limits (see section 8) wear suitable respiratory protection.

Clean-up procedures: Any spillage in unwanted areas can be swept by mechanical means and transferred to a container or skip suitable for removal by an appropriate method.

7. HANDLING AND STORAGE

Handling Requirements: Observe the normal precautions when handling the product (Manual Handling Operation Regulations 1992). Avoid the generation of airborne dust (see section 8). Ensure that big bags are properly and appropriately attached for offloading. Do not lift any damaged bags by crane.

Storage Conditions: Substrates may be stored outdoors in packaging provided but note that rain water will increase weight within big bags.

Empty Packaging: Remove empty packaging from work areas and dispose of in accordance with Section 13. Ensure that empty big bags are properly secured whilst still on the roof and cannot be blown from the roof or generally on site.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Respirable Dust: Normally used in fresh air, but airborne dust should be avoided when substrates are handled in enclosed space.

Hazardous Ingredients: None known but long term exposure to airborne dust should be avoided as prolonged inhalation of some minor components such as quartz could result in respiratory illness. Our substrates normally have sufficient moisture content that airborne dust is not an issue.

Exposure Limit Values: Occupational exposure must be kept below both 10mg/m³/8 hour TWA (Time Weighted Average) total inhalable dust and 4mg/m³/8 hour TWA respirable dust.

Respiratory Protection: Suitable respiratory protection should be worn if used in the unlikely event that the product is used in an enclosed space and above exposure limit values are exceeded.

Hand Protection: Sturdy gardening gloves or general duty gloves for use on construction sites.

Eye Protection: Safety glasses with side shields.

Skin Protection: Personal Protective clothing such as approved workplace overalls and safety shoes/boots appropriate for construction site use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Varies from looking like hardcore to a granular soil like appearance.

Odour: Light odour of compost.

pH: 7-10.5

Solubility in Water: Negligible.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions. No dangerous reactions or decomposition products known.



11. TOXICOLOGICAL INFORMATION

Toxicity Values: Specific data on LD₅₀ or LC₅₀ values has not been found. Information available indicates the material is non-toxic and beneficial to biodiversity. As with any substrate once exposed to the environment on the roof there is the possibility of the stinging or biting insects, stinging plants, thorny plants and other potentially harmful micro organisms.

Long Term Exposure: No known effects experienced in long term and repeated exposure.

Routes of exposure: Refer to Section 4, First Aid Measures for routes of exposure and effects.

12. ECOLOGICAL INFORMATION

General: Positive effects are widely reported in literature about green roofs.

Mobility: Non-volatile, insoluble in water.

Persistence/Degradability: Substrates evolve on the roof as part of their normal function, with generally a steady increase in organic content over the lifespan of the roof. Average aggregate size may reduce through freeze thaw action.

13. DISPOSAL CONSIDERATIONS

Product Disposal: Substrate can generally be reused at the end of the lifespan of a roof, either as a general purpose growing media, perhaps with additional aggregate added recycling is preferable to disposal. The material can also be landfilled in compliance with regional/national regulations.

Packaging Disposal: Dispose of as normal industrial waste in accordance with local/national regulations.

14. TRANSPORT INFORMATION

Transport Classification: Not applicable as material is classified as non-hazardous.

15. REGULATORY INFORMATION

Hazard Symbol: None. Not classified as hazardous for supply in the meaning of EU Directives.

EC Safety Phrases: S2 – Keep out of reach of children.
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.
S37/39 – Wear suitable gloves and eye/face protection.

Water-hazard Class: Not hazardous for water.

16. OTHER INFORMATION

Compliance: Complies with Directives:- 2001/58/EC; 91/155/EEC; 1999/45/EC; 67/548/EEC.
UK Guidance Publication:- EH40 Occupational Exposure Limits

Risk Phrases: R36/37/38 – Irritating eyes.

Third Party Materials: The information provided relates only to the designated materials manufactured or supplied by Shire Green Roof Substrates Limited and may not be valid for such materials used in conjunction with any other materials or in any process unless specified in the text. It is the responsibility of the customer to obtain from the manufacturer or supplier all necessary information, technical data and other properties relating to third party materials. No liability can be accepted in respect of the use of Shire Minerals Substrates Limited products in conjunction with materials from another supplier.

Liability: The information provided in this Safety Information sheet is correct to the best of Shire Green Roof Substrates Limited knowledge and belief at the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness. Users must make their own assessment of the risk encountered in their individual workplace as safety is influenced by conditions of use that are not necessarily known to Shire Green Roof Substrates Limited. Where there is a chain of supply it is the responsibility of the consigning body to provide a Safety Data Sheet and to check the adequacy of the information provided.