

Material Safety Data Sheet

Dense and Lightweight Aggregate Concrete Block Products



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1. Product Identification and Use

- 1.1 Product Identification: Aggregate Concrete Masonry Units Category 1
- 1.2 Product Use: General Purpose use in walls, columns and partitions.

2. Hazard Identification

- 2.1 Flammability

The flammability of all ingredients in concrete blocks are non-combustible / non-flammable.

- 2.2 Inhalation

Inhalation of silica particles in dust created by cutting set concrete or surface treatment of hardened concrete containing high silica aggregates may cause respiratory damage.

Where respirable dust contains high quantities of free silica in the form of quartz, there is a risk of developing silicosis. The main symptoms of this chronic disease are difficulty in breathing and coughing.

Long-term prolonged exposure to high levels of respirable crystalline silica, which can arise from a failure to implement adequate control measures, can also lead to an increased risk of developing lung cancer. Any cutting or finishing can also result in particles being projected at high speed with the consequent risk of injury or damage.

3. Composition

Masonry are units manufactured from, cementitious binder, aggregates and water which may contain admixtures and additions and colouring pigments and other materials incorporated or applied during or subsequent to unit manufacture.

- 3.1 Aggregates

Material Name: Natural limestone sands and gravels
 Chemical Composition: Carbonate rock (Primarily Calcium and Magnesium Carbonates), may contain Quartz (Crystalline Silica).

- 3.2 Portland Cement

Name	%
Calcium Carbonate	1-5
Tricalcium Silicate	40-70
Dicalcium Silicate	10-30
Tetracalcium-Alumino-Ferrite	5-10
Tricalcium aluminate	7-13
Crystalline Silica	0.1-0.2
Calcium Sulfate	3-7
Magnesium Oxide	1-5
Calcium Oxide	0.5-1.5
Hexavalent Chromium	<0.1

Note: Further Information on the use of lightweight aggregates or cementitious materials containing pozzolanic constituents such as blast furnace slag can be obtained from the manufacturer on request.

4. First Aid Measures

- 4.1 Eye contact

On contact with concrete dust, immediately irrigate with eyewash solution or clean water. If symptoms develop, obtain medical attention.

- 4.2 Skin contact

On contact with concrete dust, wash with soap and water. If irritation occurs seek medical attention.

- 4.3 Ingestion

If ingestion of concrete dust causes problems, remove from exposure and seek medical attention if required.

- 4.4 Inhalation

On inhalation of concrete dust, remove the affected person to fresh air and seek medical attention if required.

5. Fire Fighting Measures

Not Applicable.

6. Accidental Release Measures

- 6.1 Cleaning Up

No special requirements, where possible use mechanical aids to reduce the risk of manual handling injury and water sprays to limit airborne dust.

- 6.3 Environmental Measures

Aggregate concrete blocks do not constitute a significant environmental hazard.

7. Storage and Handling

- 7.1 Manual handling

Care should be taken when manually handling concrete block products. Good lifting practices should be followed at all times to avoid the risk of sprains, strains or ruptures. Plan so that, wherever possible, products are positioned near to the point of use. Wherever possible, mechanical handling devices should be used.

- 7.2 Handling Concrete Dust

Avoid dry cutting concrete wherever possible. Wet cutting reduces the amount of dust generated and is a preferable method of cutting.

- 7.2 Storage

Stock areas should always be level with a firm base to avoid pallet collapse when the outer wrapping or bands are removed. As a safety precaution, we advise customers not to stack products. Care should be taken when removing shrink wrapping or bands to avoid loose blocks falling out of the stack. Banding should be cut and not burst by the application of levered pressure. Plastic banding strips must not be burnt as toxic fumes are given off.

8. Exposure Controls/Personal Protection

8.1 Dust Exposure Controls

Where reasonably practicable, dust exposures should be controlled by methods such as wet cutting and local exhaust ventilation.

8.2 Personal Protective Equipment

Respiratory Protection:

Suitable respiratory protection (HSA approved) should be worn to ensure that personal exposure to the constituents of concrete dust is less than the relevant Workplace Exposure Limits. Always ensure good ventilation.

Hand and Skin Protection:

Gloves should be worn to protect against abrasions when handling precast concrete units. Safety footwear should be worn to protect against injury from falling masonry units.

Eye Protection:

HSA approved Goggles that offer protection against dust and flying particles should be used when cutting or working masonry concrete.

9. Physical and Chemical Properties

Physical State: Solid

Odor and Appearance: Grey colour with no distinctive odor

Specific Gravity: 1.8-2.2

10. Stability and Reactivity

Conditions contributing to chemical instability: None

Hazardous decomposition products: None

Special precautions: None

11. Toxicology Information

Route of Entry: Skin Contact, Eye contact, Inhalation

Effects of Acute Exposure

Skin: drying, irritation, cracking

Eyes: Exposure to dust may irritate eyes

Respiratory: Exposure to dust may aggravate respiratory system

Inhalation of mineral dusts over a prolonged period may give rise to a number of respiratory illnesses including, chronic bronchitis, pneumoconiosis and silicosis (if silica present).

Long-term prolonged exposure to high levels of respirable crystalline silica, which can arise from a failure to implement adequate control measures, can also lead to an increased risk of developing lung cancer.

12. Ecological Information

When used as intended no environmental impact is anticipated.

13. Disposal Considerations

Disposal of these products should be in accordance with local legal requirements.

14. Transport Information

Not hazardous, therefore no regulatory classification for conveyance is required.

15. Regulatory Information

European Communities (Classification, Packaging, Labelling & notification of Dangerous Substances (Amendment) Regulations 2008: Not classified as dangerous.

16. Other Information

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The user is responsible for determining whether the aggregate concrete block product is fit for a particular purpose and suitable for the user's method of use or application.

Given the variety of factors that can affect the use and application of the concrete block some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for the user's method of use or application

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