TARMAC
A CRH COMPANY

Safety information

Material Safety Data Sheet
GROUND GRANULATED BLASTFURNACE SLAG

GROUND GRANULATED BLASTFURNACE SLAG (GGBS)

Health and Safety Information (BS EN 15167-1)

Granulated Blastfurnace Slag is registered as a substance under the REACH Regulation (EC 1907/2006). Its REACH Registration number is 01-2119487456-25. This safety data sheet provides information about the substance to enable appropriate risk management measures to be identified and applied. Because Granulated Blastfurnace Slag does not meet the requirements for classification as dangerous under the EU Dangerous Substances (67/548/EEC) Directive or the Classification, Labelling and Packaging of substances and mixtures (CLP) regulations (EC1272/2008), there is no requirement to provide a full Material Safety Data Sheet in accordance with Article 31 of REACH. No authorisation is required under Title VII of REACH and no restriction is imposed under Title VIII of REACH.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

1.1 Identification of the substance

Ground Granulated Blastfurnace Slag (GGBS)
REACH Registration number: 01-2119487456-25
CAS number: 65996-69-2
EINECS number: 266-002-0

1.2 Use of the substance

Used as a cementitious component in eg, concrete, mortar and grout.

1.3 Company identification

Tarmac Cement Ltd,
T3 Trinity House, Bickenhill Lane,
Birmingham, B37 7ES

Technical helpdesk: +44 (0)345 812 6232
Email: info-cement@tarmac.com

1.4 Emergency telephone

Emergency telephone number available during office hours **(08:30 – 16:00):**
Tel +44 (0)345 812 6232 (English Language only)

Emergency telephone number available outside office hours: **999**

SECTION 2: HAZARDS IDENTIFICATION

GGBS is a fine powder, which can cause mechanical irritation to the eyes and respiration system. When mixed with water, the resultant liquid will gradually become alkaline with a pH up to 12.GGBS may be hot when delivered in bulk..

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

GGBS consists principally of the oxides of calcium, silicon, aluminium and magnesium with low solubility in water giving a weak alkaline solution. The fineness is approximately 500m²/kg.

SECTION 4: FIRST AID MEASURES

4.1 Eye contact

Rinse the eyes with water with the eyelids open. Seek medical advice if irritation persists.

4.2 Skin contact

Wash with soap and water.

4.3 Ingestion

Rinse mouth and drink plenty of water.

4.4 Inhalation

Move affected person into fresh air.
Seek medical advice if irritation persists..

SECTION 5: FIRE-FIGHTING MEASURES

GGBS is not flammable and will not facilitate combustion with other materials.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Refer to Section 8.

6.1 Cleaning up

If possible, recover the spillage in a dry state by vacuuming, to minimise generation of airborne dust. The product can be slurried by the addition of water.

SECTION 7: HANDLING AND STORAGE

7.1 Handling

Refer to Sections 2 and 8. Bags may have a small amount of GGBS on the outer surface and appropriate personal protective clothing should therefore be used.

7.2 Storage

Bulk fly ash should be stored in air-tight silos.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limit values

GGBS is not currently listed in the table of Workplace Exposure Limits (WELs), approved by the UK Health and Safety Commission. On the basis of the WELs for similar materials (eg, Portland cement and calcium silicate), Tarmac Cement recommend applying a WEL of 10mg/m³ total inhalable dust, 4mg/m³ respirable dust. (as 8hr Time Weighted Average). See HSE Guidance Note EH40 for further information.

8.2 Exposure controls

8.2.1 (a) Respiratory protection

Where practicable, dust exposure should be controlled by engineering methods. Otherwise, suitable respiratory protection should be worn to ensure that personal exposure is less than the WEL.

8.2.1 (b) Hand protection

Waterproof gloves should be worn, particularly when handling any GGBS/water mixture, eg, concrete or mortar.

8.2.1 (c) Eye protection

Dust-proof goggles should be worn wherever there is a risk of GGBS powder or any GGBS water mixture entering the eye.

8.2.1 (d) Skin protection

Protective clothing should be worn which ensures that GGBS or any GGBS/water mixture eg, concrete or mortar, does not come into contact with the skin. In some circumstances such as when laying concrete, waterproof trousers and Wellingtons may be necessary. Particular care should be taken to ensure that wet concrete does not enter the boots and persons do not kneel on the wet concrete so as to bring the wet concrete into contact with unprotected skin. Should wet mortar or wet concrete get inside boots, gloves or other protective clothing then this should be immediately removed and the skin Thoroughly washed as well as the protective clothing/ footwear.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: fine grey odourless powder with a particle size generally less than 50 micron
- pH of wet fly ash: 9-12
- Melting point: > 1,000°C
- Flash point: non-flammable
- Flammability: non-flammable
- Explosive properties: none
- Oxidising properties: none
- Water solubility: less than 2%
- Contains less than 1% crystalline silica
- Contains less than 2 ppm water-soluble chromium VI.

SECTION 10: STABILITY AND REACTIVITY

GGBS is low-reactivity, chemically stable and does not produce hazardous decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

The substance is not classified as dangerous. Details of the toxicological tests submitted as part of the REACH dossier for this substance are available on the European Chemicals Agency website.

Safety information

SECTION 12: ECOLOGICAL INFORMATION

In large quantities, the addition of GGBS to water will cause the pH to rise and may reduce oxygen availability, which might be toxic to aquatic life in some circumstances.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of empty bags or discarded GGBS to a place authorised to accept Builder's waste.

SECTION 14: TRANSPORT INFORMATION

GGBS is not covered by the international regulations on the transport of dangerous goods (IMDG, ADR/RID) and no classification is required.

For more details contact:
customerservice@tarmac.com