



## METASLAG (GGBFS) MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/COMPANY

#### 1.1 Product identifiers

Product name: Metaslag (granulated ground blast furnace slag)  
Brand: Metadynamics

#### 1.2 Details of the supplier of the safety data sheet

Company: Metadynamics CC  
108 Pebble Lane, Clayville ext. 14, Olifantsfontein, SA  
Tel: +27 11 316 4390 (SA) or +27 87 351 4886 (VOIP)  
Fax: +27 11 316 4395  
[www.metadynamics.co.za](http://www.metadynamics.co.za)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Overview

GGBFS 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. GGBFS may be hot when delivered in bulk.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Composition

GGBFS 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 500m<sup>2</sup>/kg.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### IF INHALED

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

##### IN CASE OF SKIN CONTACT

Wash with soap and water.

##### IN CASE OF EYE CONTACT

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

##### IF SWALLOWED

Rinse mouth and drink plenty of water.

### 5. FIRE FIGHTING MEASURES

#### 5.1 Flammability

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



## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions

Refer to section 8.

### 6.2 Methods for cleaning

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.

## 7. HANDLING AND STORAGE

### 7.1 Handling

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

### 7.2 Storage

Bulk GGBFS should be stored in air-tight silos.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Exposure limits

GGBFS 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), Metadynamics recommend applying a WEL of 10mg/m<sup>3</sup> total inhalable dust, 4mg/m<sup>3</sup> respirable dust (as 8-hr Time Weighted Average). See HSE Guidance Note EH40 for further information.

### 8.2 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.

### 8.3 Hand protection

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

### 8.4 Eye protection

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

### 8.5 Skin protection

Protective clothing should be worn which ensures that GGBFS or any GGBFS/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 gumboots may be necessary. Particular care should be taken to ensure that wet concrete does not enter the boots and persons should 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.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Colour: off-white
- b) SG: 2 – 3°
- c) pH: 8 – 11
- d) Fineness: 450 – 550 m<sup>2</sup>/kg (388)
- e) Glass content: >80
- f) Moisture: <0.2 %
- g) Bulk density:
  - 1000 to 1100 kg/m<sup>3</sup>
  - 1200 to 1300 kg/m<sup>3</sup>

## 10. STABILITY AND REACTIVITY

### 10.1 Overview

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

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Overview

The substance is not classified as dangerous.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

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

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste disposal

Dispose of empty bags or discarded GGBFS to a place authorised to accept builder's waste.

## 14. TRANSPORT INFORMATION

### 14.1 Hazard class

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

## 15. REGULATORY INFORMATION

### 15.1 Symbol

No data available.

### 15.2 Risk phrases

No data available.

### 15.3 Safety phrases

No data available.



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## 16. OTHER INFORMATION

The information in this Material Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations, management and for people working with or handling these products. This information is believed to be reliable and updated at 24/07/14 and represents the best information currently available and known by Metadynamics. However, Metadynamics makes no guarantee or warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information related herein is based on proper handling and anticipated uses and is for the material without chemical additions/alterations. Users should make their own investigations to determinate the suitability of the information for their particular purposes.