

## SAFETY DATA SHEET

## GGBS

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

## 1.1. Product identifier

## Trade name

GGBS

## Other names / Synonyms

Ground Granulated Blast Furnace Slag, Slags, ferrous metal, blast furnace

## UK REACH registration number

01-8706475375-6-XXXX

## Other means of identification

EC No.: 266-002-0

CAS No.: 65996-69-2

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

## ▼ Relevant identified uses of the substance or mixture

Constituent of standard cements (EN197-1) and special binders, concrete preparation, road construction,

Industrial purposes

Restricted to professional users.

## Uses advised against

None known.

## 1.3. Details of the supplier of the safety data sheet

## Company and address

**LKAB Minerals Ltd.**

Raynesway

DE21 7BE Derby

United Kingdom

Tel: +44 1332 673131 (09.00 – 16.00)

www.lkabminerals.com

## E-mail

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## Revision

28/07/2025

## SDS Version

5.0

## Date of previous version

03/02/2025 (4.0)

## 1.4. ▼ Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)

General public:

England - Dial 111 to reach NHS 111 (24 hour service)

Scotland - Dial 111 to reach NHS 24 (24 hour service)

Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)

See section 4 "First aid measures".

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

## 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

**Signal word**

Not applicable.

**Hazard statement(s)**

Not applicable.

**Precautionary statement(s)****General**

-

**Prevention**

-

**Response**

-

**Storage**

-

**Disposal**

-

**Hazardous substances**

Slags, ferrous metal, blast furnace

**▼ Additional labelling**

The content of water-soluble chromate is less than 2 ppm in dry storage up to 12 months from production date. If stored under moist conditions, chromate reduction may be impaired.

**2.3. Other hazards****▼ Additional warnings**

Upon mixing the product with water it will become corrosive.

When wet concrete or mortar is trapped against the skin by falling inside a worker's boots or gloves or by soaking through protective clothing—the result may be first, second, or third degree burns.

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Product/substance	Identifiers	% w/w	Classification	Note
Slags, ferrous metal, blast furnace	CAS No.: 65996-69-2 EC No.: 266-002-0 UK-REACH: 01-8706475375-6-XXXX Index No.:	95-100%		

**3.2. Mixtures**

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

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**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

**Inhalation**

In case of discomfort: bring the person into fresh air.

**▼ Skin contact**

Skin in contact with wet cement should be washed immediately with large amounts of cool clean water.

If skin irritation occurs: Get medical advice/attention.

#### ▼ Eye contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

#### Ingestion

Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

#### Burns

Not applicable.

#### 4.2. ▼ Most important symptoms and effects, both acute and delayed

Workers using cement may develop an allergy to chromium, with symptoms ranging from a mild rash to severe skin ulcers. In addition to skin reactions, hexavalent chromium can cause occupational asthma. Symptoms include wheezing and difficulty breathing. Workers may develop both skin and respiratory allergies to hexavalent chromium.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

#### 5.3. Advice for firefighters

No specific requirements.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

#### 6.3. Methods and material for containment and cleaning up

Limit spillage, sweep up and shovel into appropriate containers for disposal. Store in suitable, closed containers for disposal.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

#### 7.2. ▼ Conditions for safe storage, including any incompatibilities

No special conditions required.

##### Recommended storage material

Always store in containers of the same material as the original container.

##### ▼ Storage conditions

No specific requirements.

##### Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. ▼ Control parameters

Slags, ferrous metal, blast furnace

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): Dust - 10mg/m<sup>3</sup> total dust, 4mg/m<sup>3</sup> respirable dust

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.  
EH40/2005 Workplace exposure limits (Fourth Edition 2020).

### DNEL

No data available.

### PNEC

Slags, ferrous metal, blast furnace

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		5 g/L
Intermittent release (freshwater)		5 g/L
Marine water		500 mg/L
Sewage treatment plant		10 g/L
Soil		1 g/kg

### 8.2. ▼ Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

#### ▼ General recommendations

Provide adequate hygiene facilities on site for workers to wash hands and face at the end of a job and before eating, drinking, smoking, or using the toilet. Facilities for cleaning boots and changing clothes should also be available.

Clothing contaminated by wet cement should be quickly removed. Skin in contact with wet cement should be washed immediately with large amounts of cool clean water.

Smoking, drinking and consumption of food is not allowed in the work area.

#### Exposure scenarios

There are no exposure scenarios implemented for this product.

#### ▼ Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

#### ▼ Appropriate technical measures

Mix dry cement in well-ventilated areas.

Work in ways that minimize the amount of cement dust released.

Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above).

Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.

Ensure that eyewash stations and safety showers are located within easy reach.

#### ▼ Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Don't wash your hands with water from buckets used for cleaning tools.

Wash hands after use.

#### Measures to avoid environmental exposure

No specific requirements.

### Individual protection measures, such as personal protective equipment

#### Generally

Use only UKCA marked protective equipment.

#### Respiratory Equipment

Type	Class	Colour	Standards
SL	P3	White	EN149



#### Skin protection

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-



#### Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Gloves	-	> 480	EN374



#### Eye protection

Type	Standards
Safety glasses with side shields.	EN166



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

Granulate

#### Colour

Gray

#### Odour / Odour threshold

None

#### pH

10-12

#### Density (g/cm<sup>3</sup>)

No data available

#### Relative density

No data available

#### Bulk density (kg/m<sup>3</sup>)

1030

#### Kinematic viscosity

Not applicable - product is a solid

#### ▼ Particle characteristics

No data available.

#### Phase changes

##### Melting point/Freezing point (°C)

>1000°C

##### Softening point/range (°C)

Does not apply to solids.

##### Boiling point (°C)

Not applicable - product is a solid

##### Vapour pressure

Not applicable - product is a solid

##### Relative vapour density

Not applicable - product is a solid

##### Decomposition temperature (°C)

No data available

#### Data on fire and explosion hazards

##### Flash point (°C)

No data available

##### Flammability (°C)

No data available

##### Auto-ignition temperature (°C)

No data available

##### Lower and upper explosion limit (% v/v)

Does not apply to solids.

#### Solubility

##### Solubility in water

Insoluble

##### ▼ n-octanol/water coefficient (LogKow)

No data available.

##### ▼ Solubility in fat (g/L)

No data available.

#### 9.2. Other information

##### Evaporation rate (n-butylacetate = 100)

Not applicable - product is a solid

##### Oxidizing properties

No data available

##### Other physical and chemical parameters

No data available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available.

#### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

#### 10.3. Possibility of hazardous reactions

None known.

#### 10.4. Conditions to avoid

None known.

#### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

#### 10.6. ▼ Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

##### Acute toxicity

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

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

##### 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

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

##### Carcinogenicity

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

##### Reproductive toxicity

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

#### STOT-single exposure

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

#### STOT-repeated exposure

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

#### Aspiration hazard

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

#### 11.2. Information on other hazards

##### Long term effects

None known.

##### ▼ Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

##### Other information

None known.

### SECTION 12: Ecological information

#### 12.1. ▼ Toxicity

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

#### 12.2. Persistence and degradability

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

#### 12.3. Bioaccumulative potential

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

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

#### 12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

#### 12.7. Other adverse effects

None known.

### SECTION 13: Disposal considerations

#### Waste treatment methods

Product is not covered by regulations on dangerous waste.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

#### EWC code

Dispose of  
wastes and  
residues in  
accordance with  
local waste  
regulations

#### Specific labelling

#### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

### SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**Additional information**

Not dangerous goods according to ADR, IATA and IMDG.

**14.6. Special precautions for user**

Not applicable.

**14.7. Maritime transport in bulk according to IMO instruments**

No data available.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**Restrictions for application**

Restricted to professional users.

**Demands for specific education**

No specific requirements.

**Control of Major Accident Hazards (COMAH) - Categories / dangerous substances**

Not applicable.

**Additional information**

Not applicable.

**Sources**

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

### 15.2. Chemical safety assessment

No

## SECTION 16: Other information

### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail



RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

▼ **Additional information**

Not applicable.

**The safety data sheet is validated by**

Andrew Hatton

**Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en