

SAFETY DATA SHEET

ECR Glassflake

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

1.1. Product identifier

Trade name

ECR Glassflake

Other names / Synonyms

Glassflake / Calcium Sodium Borosilicate / Calcium Aluminum Borosilicate / Nanoflake / RI Glassflake

Product no.

GF100nm, GF100nmM, GF150nm, GF350nm, GF350nmM, GF350nmS, GF350nmSS, GF350RIa, GF500nm, GF500nmM, GF750nm, GF750nmM, GF850nm, GF850nmM, GF100, GF130, GF100M, GF100MRR, GF200, GF200M, GF300, GF300M, GF500, GF500M, GF500MRR, GF750, GF750M

UK REACH registration number

Exempt from REACH Registration. Classified as an Article. Non-hazardous.

Other means of identification

EC No.: 266-046-0

CAS No.: 65997-17-3

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

Relevant identified uses of the substance or mixture

Additive

Restricted to professional and industrial use.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Glassflake Limited

Forster Street

LS10 1PW Leeds

United Kingdom

0113 270 3615

www.glassflake.com

Contact person

Sarah Ross

E-mail

info@glassflake.com

Revision

04/06/2026

SDS Version

2.0

Date of previous version

04/06/2026 (2.0)

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

Not applicable.

Prevention

Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

Hazardous substances

Contains no substances that need to be listed on the label.

Additional labelling

EUH210, Safety data sheet available on request.

2.3. Other hazards

Additional warnings

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
Calcium Sodium Borosilicate,	CAS No.: 65997-17-3	100%		[1],
Calcium Aluminium	EC No.: 266-046-0			[19]
Borosilicate, Glass flake	UK-REACH: Exempt from REACH Registration. Classified as an Article. Non-hazardous. Index No.:			

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

[1] European occupational exposure limit.

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

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

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact

Rinse gently with lukewarm water. Remove any contact lenses if this is easy to do. Continue rinsing. In case of persistent eye irritation or discomfort: Seek medical help.

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

High amounts of dust can cause coughing and general irritation of the respiratory airways.

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

Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

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

Recommended storage material

Keep only in original packaging.

Storage conditions

Dry, cool and well ventilated

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

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

Apply general control to prevent unnecessary exposure

General recommendations

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

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

Hygiene measures

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

Work situation	Type	Class	Colour	Standards	
In the event of short termed exposure or low concentrations	Combination filter AXP1		Brown/White	EN14387, EN143	

Skin protection

Work situation	Recommended	Type/Category	Standards	
In the event of short termed exposure or low concentrations	Wear appropriate protection clothing, e.g. coveralls in polypropylene or working clothes in cotton or polyester.	-	-	

Hand protection

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
In the event of short termed exposure or low concentrations	Nitrile rubber	-	>480	EN374	

Eye protection

Work situation	Type	Standards
In the event of short termed exposure or low concentrations	Safety glasses with side shields.	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Flakes

Colour

White

Odour / Odour threshold

None

pH

7-11

Density (g/cm³)

1.2 - 40g/100g (See TDS for specific Density)

Kinematic viscosity

Not applicable

Particle characteristics

Size distribution: Milled - Average d50: 105-130µm, Unmilled - Average d50: 140-160µm by laser diffraction.

Phase changes

Melting point/Freezing point (°C)

930-1020

Softening point/range (°C)

688

Boiling point (°C)

No data available

Vapour pressure

Not applicable

Relative vapour density

Not applicable

Decomposition temperature (°C)

No data available

Data on fire and explosion hazards

Flash point (°C)

Not applicable

Flammability (°C)

The material is not combustible.

Auto-ignition temperature (°C)

Not applicable

Lower and upper explosion limit (% v/v)

Not applicable

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

Sensitivity to shock

No

Dust explosion class

St0 (No explosion)
 Evaporation rate (n-butylacetate = 100)
 Not applicable
 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

Product/substance	ECR Glassflake
Test method:	OECD 423
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>2000 mg/kg

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

Skin corrosion/irritation

Product/substance	ECR Glassflake
Test method:	OECD 404
Species:	Rabbit
Result:	No adverse effect observed (Not irritating)

Product/substance	Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Result:	Mildly irritating

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

Serious eye damage/irritation

Product/substance	ECR Glassflake
Species:	Human
Result:	No adverse effect observed (Not irritating)

Product/substance	Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Result:	Mildly irritating

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

Respiratory sensitisation

Product/substance	ECR Glassflake
-------------------	----------------

Product/substance	Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Result:	May cause an allergic skin reaction.

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

Skin sensitisation

Product/substance
Species: ECR Glassflake
Human

Product/substance
Result: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
May cause an allergic skin reaction.

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

Germ cell mutagenicity

Product/substance
Conclusion: ECR Glassflake
No evidence of mutagenic properties

Product/substance
Conclusion: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Not mutagenic

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

Carcinogenicity

Product/substance
Conclusion: ECR Glassflake
Not classifiable as a human carcinogen

Product/substance
Species: ECR Glassflake
Rat

Product/substance
Conclusion: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Not classifiable as a human carcinogen

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

Reproductive toxicity

Product/substance
Conclusion: ECR Glassflake
No toxicity to reproduction

Product/substance
Conclusion: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
No toxicity to reproduction

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

STOT-single exposure

Product/substance
Other information: ECR Glassflake
No information available

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

STOT-repeated exposure

Product/substance
Other information: ECR Glassflake
No information available

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

Aspiration hazard

Product/substance
Conclusion: ECR Glassflake
No aspiration toxicity classification

Product/substance
Conclusion: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
No aspiration toxicity classification

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

Symptoms related to the physical, chemical and toxicological characteristics

None known.

11.2. Information on other hazards

Endocrine disrupting properties

Product/substance ECR Glassflake
Product/substance Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
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

Product/substance ECR Glassflake
Other information: No information available

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

12.2. Persistence and degradability

Product/substance ECR Glassflake
Conclusion: -
Other information: No information available

12.3. Bioaccumulative potential

Product/substance ECR Glassflake
Conclusion: -
Other information: No information available

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

Product/substance ECR Glassflake
Conclusion: No adverse effect observed

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

10 11 Wastes from manufacture of glass and glass products

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/A DN/RID	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR/ADN/RID, 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

EC = Effective concentration

ED = Effective dose

EINECS = European Inventory of Existing Commercial chemical Substances

EL = Effective Loading

ErC = Concentration associated with x% growth rate response

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

HP = Hazardous Property code

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IC = X maximum inhibitory concentration

IMDG = International Maritime Dangerous Goods

LC = Lethal concentration

LCLo = Value is the lowest concentration of a material in air reported to have caused the death of animals or humans

LD = Lethal dose

LOAEC = Lowest Observed Adverse Effect Concentration

LOAEL = Lowest Observed Adverse Effect Level

LOEC = Lowest Observed Effect Concentration

LogKow = logarithm of the n-octanol/water coefficient

LL = Lethal Loading

M = For multiplication factor

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

NOAEC = No Observed Adverse Effect Concentration

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOELR = No Observable Effect Loading Rate

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

In accordance with UK-REACH, a safety data sheet is not required for this product. This safety data sheet has been created on a voluntary basis to distribute relevant information as required by UK-REACH.

The safety data sheet is validated by

Sarah Ross

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