



SAFETY DATA SHEET

GLUZYME SOLID

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

1.1. Product identifier

Product name GLUZYME SOLID

Product number 13362

Synonyms; trade names GLUZYME 10000 BG, GLUZYME MONO CONC BG

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

Identified uses Enzyme Food industry Biocatalyst

1.3. Details of the supplier of the safety data sheet

Supplier Univar
 Aquarius House
 6 Mid Point Business Park
 Bradford
 BD3 7AY
 +44 1274 267300
 +44 1274 267306
 sds@univar.com

1.4. Emergency telephone number

Emergency Contact Number SGS - +32 (0)3 575 55 55 (24h)
 (Outside Office Hours)

Sds No. 13362

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Resp. Sens. 1 - H334

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements P261 Avoid breathing vapour/ spray.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P501 Dispose of contents/ container in accordance with national regulations.

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Contains GLUCOSE OXIDASE

2.3. Other hazards

None.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

GLUCOSE OXIDASE	5-<30%
CAS number: 9001-37-0	EC number: 232-601-0
Classification Resp. Sens. 1 - H334	

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation	May cause an asthma-like shortness of breath. May cause sensitisation or allergic reactions in sensitive individuals.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards	May cause sensitisation by inhalation.
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

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Protective actions during firefighting Contain and collect extinguishing water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust. Avoid contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of dust and contact with skin and eyes. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight. Store at temperatures between 0 and 10°C

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

GLUCOSE OXIDASE (CAS: 9001-37-0)

DMEL

Workers - Inhalation; Long term local effects: 60 ng/m³

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of dust. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Chemical splash goggles.

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Hand protection	Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Wear rubber apron. Wear rubber footwear.
Hygiene measures	No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Granules.
Colour	Yellow. to Light brown.
Odour	Slight.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not determined.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.
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10.5. Incompatible materials

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of the following substances: Carbon.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation	May cause sensitisation by inhalation. Dust is severely irritating to the upper respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Powder may irritate skin.
Eye contact	Particles in the eyes may cause irritation and smarting.
Acute and chronic health hazards	May cause respiratory allergy.

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Toxicological information on ingredients.

GLUCOSE OXIDASE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 2000 mg/kg, Oral, Rat

Skin corrosion/irritation

Skin corrosion/irritation Not irritating. OECD 404

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. OECD 405

Respiratory sensitisation

Respiratory sensitisation Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties. OECD 471 OECD 476

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >100 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >100 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: >100 mg/l, Algae

Ecological information on ingredients.

GLUCOSE OXIDASE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 58.3 - 326.7 mg/l, Fish
OECD 203

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 31.7 - 457 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants EC₅₀, 72 hours: >= 5.2 mg/l, Algae
OECD 201

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

Ecological information on ingredients.

GLUCOSE OXIDASE

Persistence and degradability The product is readily biodegradable. OECD 301

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12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Ecological information on ingredients.

GLUCOSE OXIDASE

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: < 0

12.4. Mobility in soil

Mobility No information available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment No information available.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Dangerous Preparations Directive 1999/45/EC. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Guidance	CHIP for everyone HSG228. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	31/03/2015
Version number	1.000
Supersedes date	03/05/2012
SDS number	13362
SDS status	Approved.
Hazard statements in full	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Signature	Jitendra Panchal/EF