Brewer's Bunch (Amylase, Glucoamylase and Protease)

COMBINED COMPONENT SAFETY DATA SHEET PACK

This product is supplied as separately packaged enzyme components. The following current component safety data sheets are consolidated into one downloadable file for the product page.

Component	Included safety document
Brewer's Amylase	alpha-amylase-enzyme-safety-data-sheet.pdf
Brewer's Glucoamylase	glucoamylase-enzyme-safety-data-sheet.pdf
Brewer's Protease - source family sheet	acid-protease-enzyme-safety-data-sheet.pdf

Important: Each component is separately packaged. Read the label and the SDS for the specific component before use. If a component label, batch code or formulation differs from this index, stop and obtain the corresponding current SDS.

Supplier: Scientific and Technical Limited, John Eccles House, The Oxford Science Park, Oxford OX4 4GP, United Kingdom. Tel. +44 1223 626543. sales@scientificandtechnical.com

AMYLASE - SAFETY DATA SHEET

Prepared for supply in Great Britain under UK REACH and GB CLP. Structured in accordance with the applicable 16-section safety data sheet format.

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

1.1 Product identifier

Item	Information
Product name	Alpha-amylase
Product type	Liquid enzyme preparation; mixture

1.2 Relevant identified uses and uses advised against

Industrial technological aid/biocatalyst. Identified uses include industrial use and formulation, mixing or repackaging. Consumer or professional use should only take place where supported by a product-specific exposure and risk assessment. Do not use for medical, diagnostic or therapeutic purposes.

1.3 Details of the supplier of the safety data sheet

Scientific and Technical Limited
John Eccles House, The Oxford Science Park, Oxford OX4 4GP, United Kingdom
Telephone: +44 1223 626543
Email: sales@scientificandtechnical.com
Website: www.scientificandtechnical.com

1.4 Emergency telephone number

Supplier: +44 1223 626543 (English; normal UK business hours). For a life-threatening emergency in the UK call 999. For urgent medical advice call NHS 111.

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

• Respiratory sensitisation, Category 1 - H334

• Serious eye damage/eye irritation, Category 2 - H319

2.2 Label elements

DANGER

Hazard-determining component: Enzyme protein

Hazard statements

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

H319 - Causes serious eye irritation.

Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 - Wash hands thoroughly after handling.

P280 - Wear protective gloves/eye protection/face protection.

P284 - [In case of inadequate ventilation] wear respiratory protection.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTRE/doctor.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P501 - Dispose of contents/container in accordance with local, regional and national regulations.

2.3 Other hazards

Available formulation information indicates that the mixture does not meet the PBT or vPvB criteria and contains no identified component with endocrine-disrupting properties. Spraying, vigorous agitation or handling dried residues may generate enzyme-containing aerosols or dust.

SECTION 3 Composition/information on ingredients

3.2 Mixtures - Liquid preparation. Declared enzyme protein content: 8-15%.

Component	Concentration	Identifiers	Classification
Alpha-amylase (enzyme protein)	8-15%	CAS 9000-90-2 EC 232-565-6 Enzyme EC 3.2.1.1	Resp. Sens. 1, H334

Concentrations and component identities are reported from the available formulation information. Where a total enzyme-protein range is stated for a blend, individual enzyme proportions are not disclosed. Full hazard-statement wording is provided in Section 16.

SECTION 4 First-aid measures

4.1 Description of first-aid measures

General: Remove contaminated clothing. Seek medical advice if symptoms persist or if there is any concern.

Inhalation: Move the person to fresh air and keep comfortable for breathing. If breathing is difficult or respiratory sensitisation symptoms occur, contact a doctor or poison centre immediately.

Skin contact: Wash with plenty of water and soap. Wash contaminated clothing before reuse. Seek medical advice if irritation develops.

Eye contact: Rinse cautiously with clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Continue rinsing and obtain medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical advice if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Serious eye irritation; allergic or asthma-like respiratory symptoms in sensitised individuals. Prolonged skin contact may cause irritation.

4.3 Indication of immediate medical attention and special treatment

Treat symptomatically. Consider occupational enzyme sensitisation if respiratory symptoms are present.

SECTION 5 Firefighting measures

5.1 Extinguishing media: Use water spray, alcohol-resistant foam, dry powder or carbon dioxide as appropriate for the surrounding fire.

5.2 Special hazards: The product is an aqueous preparation and is not expected to sustain combustion. Heating or fire may produce irritating decomposition products. Avoid inhaling enzyme-containing smoke, aerosols or dust.

5.3 Advice for firefighters: Wear self-contained breathing apparatus and full protective clothing. Contain contaminated firefighting water and dispose of it in accordance with local requirements.

SECTION 6 Accidental release measures

6.1 Personal precautions: Ensure adequate ventilation. Avoid inhalation of mist, aerosol or dust. Wear personal protective equipment described in Section 8 and keep unprotected persons away.

6.2 Environmental precautions: Prevent further leakage. Do not allow uncontrolled entry into drains, surface water or soil. Notify the relevant authority if a significant release cannot be contained.

6.3 Methods and material for containment and cleaning: Contain the liquid with inert absorbent material and collect it mechanically. Avoid splashing and high-pressure cleaning. Avoid raising dried residues. Wash the affected surface with water after recovery where local discharge controls permit.

6.4 Reference to other sections: See Section 8 for personal protection and Section 13 for disposal.

SECTION 7 Handling and storage

7.1 Precautions for safe handling: Avoid direct contact and inhalation. Do not spray. Avoid splashing and aerosol formation. Use only with adequate ventilation. Do not eat, drink or smoke while handling. Wash hands after use.

7.2 Conditions for safe storage: Keep the original container tightly closed, upright and in a cool, well-ventilated place at 5-25 °C. Protect from heat, direct sunlight, contamination and ignition sources.

7.3 Specific end uses: Industrial use as a biocatalyst/technological aid. No exposure scenario was supplied.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters: No product-specific workplace exposure limit is stated in the source information. Exposure to airborne enzyme protein should be prevented or reduced to the lowest level reasonably practicable under COSHH.

8.2 Exposure controls

Control	Recommended measure
Engineering controls	Use closed handling or effective local exhaust where mist or aerosol may be generated. If exposure cannot be adequately controlled, use suitable respiratory protection with a P3 particulate filter selected by a competent person.
Eye/face protection	Tightly fitting safety goggles. Add a face shield where splashing is possible.
Hand protection	Chemical-resistant protective gloves. Select material and breakthrough time for the complete formulation and task.
Body protection	Suitable protective work clothing.
Hygiene measures	Wash hands after handling and before breaks. Remove and wash contaminated clothing.
Environmental controls	Prevent uncontrolled release and route wastewater to suitable treatment.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value/information
Physical state	Liquid
Colour	Brown
Odour	Slight fermentation odour
Melting/freezing point	Not determined
Boiling point/range	Not determined
Flammability	Not classified as flammable
Lower/upper explosion limit	Not applicable/not determined
Flash point	>100 °C (PMCC; reported value)
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
pH	5.5-7.0
Kinematic viscosity	No data available
Solubility	Soluble/miscible in water
Partition coefficient n-octanol/water	No data available
Vapour pressure	Not determined
Density	1.0-1.1 kg/L
Relative vapour density	Not determined
Particle characteristics	Not applicable (liquid)

9.2 Other information: Evaporation rate, oxidising properties and other physical hazard data have not been determined for the finished mixture.

SECTION 10 Stability and reactivity

Subsection	Information
10.1 Reactivity	No hazardous reactivity is expected under normal conditions of use.
10.2 Chemical stability	Stable under the recommended handling and storage conditions.
10.3 Hazardous reactions	Hazardous polymerisation is not expected.
10.4 Conditions to avoid	Aerosol or dust formation, extreme temperatures, ignition sources and contamination.
10.5 Incompatible materials	No specific incompatibilities were supplied; avoid strong oxidising agents as a precaution.
10.6 Hazardous decomposition products	None expected during correct storage. Irritating decomposition products may be generated in a fire.

SECTION 11 Toxicological information

11.1 Information on hazard classes

Hazard class	Assessment based on available information
Acute toxicity	No adequate test data for the finished mixture. Not classified as acutely toxic on the supplied component information.
Skin corrosion/irritation	Not classified for skin irritation; prolonged contact may cause irritation.
Serious eye damage/irritation	Classified as Eye Irrit. 2; H319.
Respiratory/skin sensitisation	Classified as Resp. Sens. 1; H334. No adequate data for skin sensitisation.
Germ cell mutagenicity	No evidence of classification in the supplied information; no finished-mixture data available.
Carcinogenicity	No component identified in the supplied formulation information as a classified carcinogen.
Reproductive toxicity	No component identified in the supplied formulation information as a classified reproductive toxicant.
STOT - single exposure	Not classified on the available information.
STOT - repeated exposure	No data available; not classified.
Aspiration hazard	Not classified on the available information.

Likely routes and symptoms: Inhalation of enzyme-containing mist, aerosol or dust may cause allergic or asthma-like symptoms in sensitised persons. Eye contact causes serious irritation. Skin contact may cause irritation.

11.2 Other hazards: No component is identified in the supplied formulation information as having endocrine-disrupting properties. No additional toxicological effects are known from the available information.

SECTION 12 Ecological information

Subsection	Information
12.1 Toxicity	No finished-product ecotoxicity data available. Prevent release to surface water, drains and soil.
12.2 Persistence and degradability	Enzyme proteins are generally biodegradable; no finished-product test data were supplied.
12.3 Bioaccumulative potential	Bioaccumulation of enzyme proteins is not expected; no finished-product data available.
12.4 Mobility in soil	The liquid phase may disperse in water.
12.5 PBT/vPvB assessment	Available supplier information indicates that the mixture contains no substance meeting the PBT or vPvB criteria.
12.6 Endocrine-disrupting properties	No component identified as having endocrine-disrupting properties in the supplied formulation information.
12.7 Other adverse effects	None known; data are limited.

SECTION 13 Disposal considerations

13.1 Waste treatment methods: Dispose of product residues and contaminated packaging through an authorised waste contractor in accordance with local and national requirements. Do not discharge uncontrolled product to drains. Assign the waste code according to the source and actual use of the waste. Empty containers completely before recycling or disposal.

SECTION 14 Transport information

Not classified as dangerous goods under the listed transport regulations.

Item	ADR/RID, IMDG and ICAO-TI/IATA-DGR
14.1 UN number or ID number	Not assigned
14.2 UN proper shipping name	Not assigned
14.3 Transport hazard class	Not regulated
14.4 Packing group	Not assigned
14.5 Environmental hazards	Not classified as environmentally hazardous for transport
14.6 Special precautions	Keep containers tightly closed, upright and protected from damage and extreme temperatures.
14.7 Maritime transport in bulk	Not applicable to the product as supplied.

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations: UK REACH Regulation and GB CLP Regulation, as assimilated and amended in Great Britain; Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended. Users must also comply with applicable environmental, waste and workplace legislation.

EU/EEA and Northern Ireland supply: Supply into these markets is subject to EU REACH and EU CLP requirements. The responsible EU/EEA or Northern Ireland supplier must provide the applicable local-language SDS and complete any required poison-centre notification/UFI obligations.

15.2 Chemical safety assessment: No chemical safety assessment has been supplied for this mixture.

SECTION 16 Other information

Full hazard-statement wording:

H319 - Causes serious eye irritation.

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

Abbreviations: ADR = Agreement concerning the International Carriage of Dangerous Goods by Road; CLP = Classification, Labelling and Packaging; COSHH = Control of Substances Hazardous to Health; EC = European Community; IATA = International Air Transport Association; IMDG = International Maritime Dangerous Goods; PBT = persistent, bioaccumulative and toxic; REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals; STOT = specific target organ toxicity; vPvB = very persistent and very bioaccumulative.

Classification method: Based on the product-classification review and the disclosed component information. Review is required if the formulation, supplier classification or physical form changes.

Revision: Version 2.3, issued 02.09.2026. Corporate logo and document colour palette updated; no change to the hazard classification. Previous revision 2.2 revised the document design, typography and pagination. Revision 2.1 removed the former STOT SE 3 respiratory-tract irritation classification and associated exclamation-mark pictogram following product-classification review. The health-hazard pictogram and H334 respiratory-sensitisation classification remain applicable.

Training advice: Personnel must be trained in safe handling of enzyme preparations, prevention of airborne exposure, spill response and correct use of personal protective equipment.

Disclaimer: The information describes the product for health, safety and environmental purposes and is not a guarantee of any specific property. It is based on the information available at the issue date. Users remain responsible for assessing suitability and complying with applicable law.

THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS ENGLISH EDITIONS.

GLUCOAMYLASE - SAFETY DATA SHEET

Prepared for supply in Great Britain under UK REACH and GB CLP. Structured in accordance with the applicable 16-section safety data sheet format.

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

1.1 Product identifier

Item	Information
Product name	Glucoamylase
Product type	Liquid enzyme preparation; mixture

1.2 Relevant identified uses and uses advised against

Industrial technological aid/biocatalyst. Identified uses include industrial use and formulation, mixing or repackaging. Consumer or professional use should only take place where supported by a product-specific exposure and risk assessment. Do not use for medical, diagnostic or therapeutic purposes.

1.3 Details of the supplier of the safety data sheet

Scientific and Technical Limited
John Eccles House, The Oxford Science Park, Oxford OX4 4GP, United Kingdom
Telephone: +44 1223 626543
Email: sales@scientificandtechnical.com
Website: www.scientificandtechnical.com

1.4 Emergency telephone number

Supplier: +44 1223 626543 (English; normal UK business hours). For a life-threatening emergency in the UK call 999. For urgent medical advice call NHS 111.

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

• Respiratory sensitisation, Category 1 - H334

• Serious eye damage/eye irritation, Category 2 - H319

2.2 Label elements

DANGER

Hazard-determining component: Enzyme protein

Hazard statements

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

H319 - Causes serious eye irritation.

Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 - Wash hands thoroughly after handling.

P280 - Wear protective gloves/eye protection/face protection.

P284 - [In case of inadequate ventilation] wear respiratory protection.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTRE/doctor.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P501 - Dispose of contents/container in accordance with local, regional and national regulations.

2.3 Other hazards

Available formulation information indicates that the mixture does not meet the PBT or vPvB criteria and contains no identified component with endocrine-disrupting properties. Spraying, vigorous agitation or handling dried residues may generate enzyme-containing aerosols or dust.

SECTION 3 Composition/information on ingredients

3.2 Mixtures - Liquid preparation. Declared enzyme protein content: 8-15%.

Component	Concentration	Identifiers	Classification
Glucoamylase (enzyme protein)	8-15%	CAS 9032-08-0 EC 232-877-2 Enzyme EC 3.2.1.3	Resp. Sens. 1, H334

Concentrations and component identities are reported from the available formulation information. Where a total enzyme-protein range is stated for a blend, individual enzyme proportions are not disclosed. Full hazard-statement wording is provided in Section 16.

SECTION 4 First-aid measures

4.1 Description of first-aid measures

General: Remove contaminated clothing. Seek medical advice if symptoms persist or if there is any concern.

Inhalation: Move the person to fresh air and keep comfortable for breathing. If breathing is difficult or respiratory sensitisation symptoms occur, contact a doctor or poison centre immediately.

Skin contact: Wash with plenty of water and soap. Wash contaminated clothing before reuse. Seek medical advice if irritation develops.

Eye contact: Rinse cautiously with clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Continue rinsing and obtain medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical advice if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Serious eye irritation; allergic or asthma-like respiratory symptoms in sensitised individuals. Prolonged skin contact may cause irritation.

4.3 Indication of immediate medical attention and special treatment

Treat symptomatically. Consider occupational enzyme sensitisation if respiratory symptoms are present.

SECTION 5 Firefighting measures

5.1 Extinguishing media: Use water spray, alcohol-resistant foam, dry powder or carbon dioxide as appropriate for the surrounding fire.

5.2 Special hazards: The product is an aqueous preparation and is not expected to sustain combustion. Heating or fire may produce irritating decomposition products. Avoid inhaling enzyme-containing smoke, aerosols or dust.

5.3 Advice for firefighters: Wear self-contained breathing apparatus and full protective clothing. Contain contaminated firefighting water and dispose of it in accordance with local requirements.

SECTION 6 Accidental release measures

6.1 Personal precautions: Ensure adequate ventilation. Avoid inhalation of mist, aerosol or dust. Wear personal protective equipment described in Section 8 and keep unprotected persons away.

6.2 Environmental precautions: Prevent further leakage. Do not allow uncontrolled entry into drains, surface water or soil. Notify the relevant authority if a significant release cannot be contained.

6.3 Methods and material for containment and cleaning: Contain the liquid with inert absorbent material and collect it mechanically. Avoid splashing and high-pressure cleaning. Avoid raising dried residues. Wash the affected surface with water after recovery where local discharge controls permit.

6.4 Reference to other sections: See Section 8 for personal protection and Section 13 for disposal.

SECTION 7 Handling and storage

7.1 Precautions for safe handling: Avoid direct contact and inhalation. Do not spray. Avoid splashing and aerosol formation. Use only with adequate ventilation. Do not eat, drink or smoke while handling. Wash hands after use.

7.2 Conditions for safe storage: Keep the original container tightly closed, upright and in a cool, well-ventilated place at 5-25 °C. Protect from heat, direct sunlight, contamination and ignition sources.

7.3 Specific end uses: Industrial use as a biocatalyst/technological aid. No exposure scenario was supplied.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters: No product-specific workplace exposure limit is stated in the source information. Exposure to airborne enzyme protein should be prevented or reduced to the lowest level reasonably practicable under COSHH.

8.2 Exposure controls

Control	Recommended measure
Engineering controls	Use closed handling or effective local exhaust where mist or aerosol may be generated. If exposure cannot be adequately controlled, use suitable respiratory protection with a P3 particulate filter selected by a competent person.
Eye/face protection	Tightly fitting safety goggles. Add a face shield where splashing is possible.
Hand protection	Chemical-resistant protective gloves. Select material and breakthrough time for the complete formulation and task.
Body protection	Suitable protective work clothing.
Hygiene measures	Wash hands after handling and before breaks. Remove and wash contaminated clothing.
Environmental controls	Prevent uncontrolled release and route wastewater to suitable treatment.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value/information
Physical state	Liquid
Colour	Brown
Odour	Slight fermentation odour
Melting/freezing point	Not determined
Boiling point/range	Not determined
Flammability	Not classified as flammable
Lower/upper explosion limit	Not applicable/not determined
Flash point	>100 °C (PMCC; reported value)
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
pH	5.5-6.5
Kinematic viscosity	No data available
Solubility	Soluble/miscible in water
Partition coefficient n-octanol/water	No data available
Vapour pressure	Not determined
Density	1.0-1.1 kg/L
Relative vapour density	Not determined
Particle characteristics	Not applicable (liquid)

9.2 Other information: Evaporation rate, oxidising properties and other physical hazard data have not been determined for the finished mixture.

SECTION 10 Stability and reactivity

Subsection	Information
10.1 Reactivity	No hazardous reactivity is expected under normal conditions of use.
10.2 Chemical stability	Stable under the recommended handling and storage conditions.
10.3 Hazardous reactions	Hazardous polymerisation is not expected.
10.4 Conditions to avoid	Aerosol or dust formation, extreme temperatures, ignition sources and contamination.
10.5 Incompatible materials	No specific incompatibilities were supplied; avoid strong oxidising agents as a precaution.
10.6 Hazardous decomposition products	None expected during correct storage. Irritating decomposition products may be generated in a fire.

SECTION 11 Toxicological information

11.1 Information on hazard classes

Hazard class	Assessment based on available information
Acute toxicity	No adequate test data for the finished mixture. Not classified as acutely toxic on the supplied component information.
Skin corrosion/irritation	Not classified for skin irritation; prolonged contact may cause irritation.
Serious eye damage/irritation	Classified as Eye Irrit. 2; H319.
Respiratory/skin sensitisation	Classified as Resp. Sens. 1; H334. No adequate data for skin sensitisation.
Germ cell mutagenicity	No evidence of classification in the supplied information; no finished-mixture data available.
Carcinogenicity	No component identified in the supplied formulation information as a classified carcinogen.
Reproductive toxicity	No component identified in the supplied formulation information as a classified reproductive toxicant.
STOT - single exposure	Not classified on the available information.
STOT - repeated exposure	No data available; not classified.
Aspiration hazard	Not classified on the available information.

Likely routes and symptoms: Inhalation of enzyme-containing mist, aerosol or dust may cause allergic or asthma-like symptoms in sensitised persons. Eye contact causes serious irritation. Skin contact may cause irritation.

11.2 Other hazards: No component is identified in the supplied formulation information as having endocrine-disrupting properties. No additional toxicological effects are known from the available information.

SECTION 12 Ecological information

Subsection	Information
12.1 Toxicity	No finished-product ecotoxicity data available. Prevent release to surface water, drains and soil.
12.2 Persistence and degradability	Enzyme proteins are generally biodegradable; no finished-product test data were supplied.
12.3 Bioaccumulative potential	Bioaccumulation of enzyme proteins is not expected; no finished-product data available.
12.4 Mobility in soil	The liquid phase may disperse in water.
12.5 PBT/vPvB assessment	Available supplier information indicates that the mixture contains no substance meeting the PBT or vPvB criteria.
12.6 Endocrine-disrupting properties	No component identified as having endocrine-disrupting properties in the supplied formulation information.
12.7 Other adverse effects	None known; data are limited.

SECTION 13 Disposal considerations

13.1 Waste treatment methods: Dispose of product residues and contaminated packaging through an authorised waste contractor in accordance with local and national requirements. Do not discharge uncontrolled product to drains. Assign the waste code according to the source and actual use of the waste. Empty containers completely before recycling or disposal.

SECTION 14 Transport information

Not classified as dangerous goods under the listed transport regulations.

Item	ADR/RID, IMDG and ICAO-TI/IATA-DGR
14.1 UN number or ID number	Not assigned
14.2 UN proper shipping name	Not assigned
14.3 Transport hazard class	Not regulated
14.4 Packing group	Not assigned
14.5 Environmental hazards	Not classified as environmentally hazardous for transport
14.6 Special precautions	Keep containers tightly closed, upright and protected from damage and extreme temperatures.
14.7 Maritime transport in bulk	Not applicable to the product as supplied.

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations: UK REACH Regulation and GB CLP Regulation, as assimilated and amended in Great Britain; Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended. Users must also comply with applicable environmental, waste and workplace legislation.

EU/EEA and Northern Ireland supply: Supply into these markets is subject to EU REACH and EU CLP requirements. The responsible EU/EEA or Northern Ireland supplier must provide the applicable local-language SDS and complete any required poison-centre notification/UFI obligations.

15.2 Chemical safety assessment: No chemical safety assessment has been supplied for this mixture.

SECTION 16 Other information

Full hazard-statement wording:

H319 - Causes serious eye irritation.

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

Abbreviations: ADR = Agreement concerning the International Carriage of Dangerous Goods by Road; CLP = Classification, Labelling and Packaging; COSHH = Control of Substances Hazardous to Health; EC = European Community; IATA = International Air Transport Association; IMDG = International Maritime Dangerous Goods; PBT = persistent, bioaccumulative and toxic; REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals; STOT = specific target organ toxicity; vPvB = very persistent and very bioaccumulative.

Classification method: Based on the product-classification review and the disclosed component information. Review is required if the formulation, supplier classification or physical form changes.

Revision: Version 2.3, issued 02.09.2026. Corporate logo and colour palette updated; classification unchanged. Revision 2.2 updated design, typography and pagination. Revision 2.1 removed the former STOT SE 3 respiratory-tract irritation classification after review; the health-hazard pictogram and H334 remain applicable. Corrected the EC substance number from 232-577-2 to 232-877-2 and verified enzyme EC 3.2.1.3.

Training advice: Personnel must be trained in safe handling of enzyme preparations, prevention of airborne exposure, spill response and correct use of personal protective equipment.

Disclaimer: The information describes the product for health, safety and environmental purposes and is not a guarantee of any specific property. It is based on the information available at the issue date. Users remain responsible for assessing suitability and complying with applicable law.

THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS ENGLISH EDITIONS.

PROTEASE (ACIDIC) - SAFETY DATA SHEET

Prepared for supply in Great Britain under UK REACH and GB CLP. Structured in accordance with the applicable 16-section safety data sheet format.

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

1.1 Product identifier

Item	Information
Product name	Aspergillus Acid Protease (Aspergillopepsin I)
Product type	Liquid enzyme preparation; mixture

1.2 Relevant identified uses and uses advised against

Industrial technological aid/biocatalyst. Identified uses include industrial use and formulation, mixing or repackaging. Consumer or professional use should only take place where supported by a product-specific exposure and risk assessment. Do not use for medical, diagnostic or therapeutic purposes.

1.3 Details of the supplier of the safety data sheet

Scientific and Technical Limited
John Eccles House, The Oxford Science Park, Oxford OX4 4GP, United Kingdom
Telephone: +44 1223 626543
Email: sales@scientificandtechnical.com
Website: www.scientificandtechnical.com

1.4 Emergency telephone number

Supplier: +44 1223 626543 (English; normal UK business hours). For a life-threatening emergency in the UK call 999. For urgent medical advice call NHS 111.

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

• Respiratory sensitisation, Category 1 - H334

• Serious eye damage/eye irritation, Category 2 - H319

2.2 Label elements

DANGER

Hazard-determining component: Enzyme protein

Hazard statements

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

H319 - Causes serious eye irritation.

Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 - Wash hands thoroughly after handling.

P280 - Wear protective gloves/eye protection/face protection.

P284 - [In case of inadequate ventilation] wear respiratory protection.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTRE/doctor.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P501 - Dispose of contents/container in accordance with local, regional and national regulations.

2.3 Other hazards

Available formulation information indicates that the mixture does not meet the PBT or vPvB criteria and contains no identified component with endocrine-disrupting properties. Spraying, vigorous agitation or handling dried residues may generate enzyme-containing aerosols or dust.

SECTION 3 Composition/information on ingredients

3.2 Mixtures - Liquid preparation. Declared enzyme protein content: 10-15%.

Component	Concentration	Identifiers	Classification
Aspergillopepsin I (acid protease enzyme protein)	10-15%	CAS 9025-49-4 EC Not supplied Enzyme EC 3.4.23.18	Resp. Sens. 1, H334

Concentrations and component identities are reported from the available formulation information. Where a total enzyme-protein range is stated for a blend, individual enzyme proportions are not disclosed. Full hazard-statement wording is provided in Section 16.

SECTION 4 First-aid measures

4.1 Description of first-aid measures

General: Remove contaminated clothing. Seek medical advice if symptoms persist or if there is any concern.

Inhalation: Move the person to fresh air and keep comfortable for breathing. If breathing is difficult or respiratory sensitisation symptoms occur, contact a doctor or poison centre immediately.

Skin contact: Wash with plenty of water and soap. Wash contaminated clothing before reuse. Seek medical advice if irritation develops.

Eye contact: Rinse cautiously with clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Continue rinsing and obtain medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical advice if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Serious eye irritation; allergic or asthma-like respiratory symptoms in sensitised individuals. Prolonged skin contact may cause irritation.

4.3 Indication of immediate medical attention and special treatment

Treat symptomatically. Consider occupational enzyme sensitisation if respiratory symptoms are present.

SECTION 5 Firefighting measures

5.1 Extinguishing media: Use water spray, alcohol-resistant foam, dry powder or carbon dioxide as appropriate for the surrounding fire.

5.2 Special hazards: The product is an aqueous preparation and is not expected to sustain combustion. Heating or fire may produce irritating decomposition products. Avoid inhaling enzyme-containing smoke, aerosols or dust.

5.3 Advice for firefighters: Wear self-contained breathing apparatus and full protective clothing. Contain contaminated firefighting water and dispose of it in accordance with local requirements.

SECTION 6 Accidental release measures

6.1 Personal precautions: Ensure adequate ventilation. Avoid inhalation of mist, aerosol or dust. Wear personal protective equipment described in Section 8 and keep unprotected persons away.

6.2 Environmental precautions: Prevent further leakage. Do not allow uncontrolled entry into drains, surface water or soil. Notify the relevant authority if a significant release cannot be contained.

6.3 Methods and material for containment and cleaning: Contain the liquid with inert absorbent material and collect it mechanically. Avoid splashing and high-pressure cleaning. Avoid raising dried residues. Wash the affected surface with water after recovery where local discharge controls permit.

6.4 Reference to other sections: See Section 8 for personal protection and Section 13 for disposal.

SECTION 7 Handling and storage

7.1 Precautions for safe handling: Avoid direct contact and inhalation. Do not spray. Avoid splashing and aerosol formation. Use only with adequate ventilation. Do not eat, drink or smoke while handling. Wash hands after use.

7.2 Conditions for safe storage: Keep the original container tightly closed, upright and in a cool, well-ventilated place at 5-25 °C. Protect from heat, direct sunlight, contamination and ignition sources.

7.3 Specific end uses: Industrial use as a biocatalyst/technological aid. No exposure scenario was supplied.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters: No product-specific workplace exposure limit is stated in the source information. Exposure to airborne enzyme protein should be prevented or reduced to the lowest level reasonably practicable under COSHH.

8.2 Exposure controls

Control	Recommended measure
Engineering controls	Use closed handling or effective local exhaust where mist or aerosol may be generated. If exposure cannot be adequately controlled, use suitable respiratory protection with a P3 particulate filter selected by a competent person.
Eye/face protection	Tightly fitting safety goggles. Add a face shield where splashing is possible.
Hand protection	Chemical-resistant protective gloves. Select material and breakthrough time for the complete formulation and task.
Body protection	Suitable protective work clothing.
Hygiene measures	Wash hands after handling and before breaks. Remove and wash contaminated clothing.
Environmental controls	Prevent uncontrolled release and route wastewater to suitable treatment.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value/information
Physical state	Liquid
Colour	Brown
Odour	Slight fermentation odour
Melting/freezing point	Not determined
Boiling point/range	Not determined
Flammability	Not classified as flammable
Lower/upper explosion limit	Not applicable/not determined
Flash point	>100 °C (PMCC; reported value)
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
pH	5.5-6.5
Kinematic viscosity	No data available
Solubility	Soluble/miscible in water
Partition coefficient n-octanol/water	No data available
Vapour pressure	Not determined
Density	1.0-1.1 kg/L
Relative vapour density	Not determined
Particle characteristics	Not applicable (liquid)

9.2 Other information: Evaporation rate, oxidising properties and other physical hazard data have not been determined for the finished mixture.

SECTION 10 Stability and reactivity

Subsection	Information
10.1 Reactivity	No hazardous reactivity is expected under normal conditions of use.
10.2 Chemical stability	Stable under the recommended handling and storage conditions.
10.3 Hazardous reactions	Hazardous polymerisation is not expected.
10.4 Conditions to avoid	Aerosol or dust formation, extreme temperatures, ignition sources and contamination.
10.5 Incompatible materials	No specific incompatibilities were supplied; avoid strong oxidising agents as a precaution.
10.6 Hazardous decomposition products	None expected during correct storage. Irritating decomposition products may be generated in a fire.

SECTION 11 Toxicological information

11.1 Information on hazard classes

Hazard class	Assessment based on available information
Acute toxicity	No adequate test data for the finished mixture. Not classified as acutely toxic on the supplied component information.
Skin corrosion/irritation	Not classified for skin irritation; prolonged contact may cause irritation.
Serious eye damage/irritation	Classified as Eye Irrit. 2; H319.
Respiratory/skin sensitisation	Classified as Resp. Sens. 1; H334. No adequate data for skin sensitisation.
Germ cell mutagenicity	No evidence of classification in the supplied information; no finished-mixture data available.
Carcinogenicity	No component identified in the supplied formulation information as a classified carcinogen.
Reproductive toxicity	No component identified in the supplied formulation information as a classified reproductive toxicant.
STOT - single exposure	Not classified on the available information.
STOT - repeated exposure	No data available; not classified.
Aspiration hazard	Not classified on the available information.

Likely routes and symptoms: Inhalation of enzyme-containing mist, aerosol or dust may cause allergic or asthma-like symptoms in sensitised persons. Eye contact causes serious irritation. Skin contact may cause irritation.

11.2 Other hazards: No component is identified in the supplied formulation information as having endocrine-disrupting properties. No additional toxicological effects are known from the available information.

SECTION 12 Ecological information

Subsection	Information
12.1 Toxicity	No finished-product ecotoxicity data available. Prevent release to surface water, drains and soil.
12.2 Persistence and degradability	Enzyme proteins are generally biodegradable; no finished-product test data were supplied.
12.3 Bioaccumulative potential	Bioaccumulation of enzyme proteins is not expected; no finished-product data available.
12.4 Mobility in soil	The liquid phase may disperse in water.
12.5 PBT/vPvB assessment	Available supplier information indicates that the mixture contains no substance meeting the PBT or vPvB criteria.
12.6 Endocrine-disrupting properties	No component identified as having endocrine-disrupting properties in the supplied formulation information.
12.7 Other adverse effects	None known; data are limited.

SECTION 13 Disposal considerations

13.1 Waste treatment methods: Dispose of product residues and contaminated packaging through an authorised waste contractor in accordance with local and national requirements. Do not discharge uncontrolled product to drains. Assign the waste code according to the source and actual use of the waste. Empty containers completely before recycling or disposal.

SECTION 14 Transport information

Not classified as dangerous goods under the listed transport regulations.

Item	ADR/RID, IMDG and ICAO-TI/IATA-DGR
14.1 UN number or ID number	Not assigned
14.2 UN proper shipping name	Not assigned
14.3 Transport hazard class	Not regulated
14.4 Packing group	Not assigned
14.5 Environmental hazards	Not classified as environmentally hazardous for transport
14.6 Special precautions	Keep containers tightly closed, upright and protected from damage and extreme temperatures.
14.7 Maritime transport in bulk	Not applicable to the product as supplied.

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations: UK REACH Regulation and GB CLP Regulation, as assimilated and amended in Great Britain; Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended. Users must also comply with applicable environmental, waste and workplace legislation.

EU/EEA and Northern Ireland supply: Supply into these markets is subject to EU REACH and EU CLP requirements. The responsible EU/EEA or Northern Ireland supplier must provide the applicable local-language SDS and complete any required poison-centre notification/UFI obligations.

15.2 Chemical safety assessment: No chemical safety assessment has been supplied for this mixture.

SECTION 16 Other information

Full hazard-statement wording:

H319 - Causes serious eye irritation.

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

Abbreviations: ADR = Agreement concerning the International Carriage of Dangerous Goods by Road; CLP = Classification, Labelling and Packaging; COSHH = Control of Substances Hazardous to Health; EC = European Community; IATA = International Air Transport Association; IMDG = International Maritime Dangerous Goods; PBT = persistent, bioaccumulative and toxic; REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals; STOT = specific target organ toxicity; vPvB = very persistent and very bioaccumulative.

Classification method: Based on the product-classification review and the disclosed component information. Review is required if the formulation, supplier classification or physical form changes.

Revision: Version 2.3, issued 02.09.2026. Corporate logo and colour palette updated; classification unchanged. Revision 2.2 updated design, typography and pagination. Revision 2.1 removed the former STOT SE 3 respiratory-tract irritation classification after review; the health-hazard pictogram and H334 remain applicable. Corrected the identity from a neutral Bacillus protease to aspergillopepsin I, CAS 9025-49-4 and enzyme EC 3.4.23.18.

Training advice: Personnel must be trained in safe handling of enzyme preparations, prevention of airborne exposure, spill response and correct use of personal protective equipment.

Disclaimer: The information describes the product for health, safety and environmental purposes and is not a guarantee of any specific property. It is based on the information available at the issue date. Users remain responsible for assessing suitability and complying with applicable law.

THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS ENGLISH EDITIONS.