

SAFETY DATA SHEET

Document reference number: SDS ENZYMES FFMU

Issue number: REV 0 / MAY 2025

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),
1272/2008 (CLP) & 2015/830

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product code(s) & Product Name	443000	Bromelite
	441000	Papenzyme-Plus
CAS No.	Mixture	
EINECS No.	Mixture	
Product Description	Papenzyme-plus: A clear, colourless solution containing Papain, Sodium chloride, EDTA, various other salts for buffering, Chloramphenicol, Trimethoprim and Phenol as preservatives. Bromelite: A clear, colourless solution containing Bromelain, Sodium chloride, EDTA, various other salts for buffering, Chloramphenicol, Trimethoprim and Phenol as preservatives.	

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

Identified Use(s)	For Further Manufacturing Use
Uses Advised Against	Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Company Identification	Lorne Laboratories Ltd Unit 1 Cutbush Park Industrial Estate Danehill Lower Earley Berkshire RG6 4UT United Kingdom
Telephone	+44(0) 0118 921 2264
Fax	+44(0) 0118 986 4518
E-Mail (competent person)	Info@lornelabs.com

1.4 Emergency telephone number

	+44(0) 0118 921 2264
	Available 0900 – 1700 (GMT)
Languages spoken	English

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Not classified as hazardous for supply/use.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Hazard Pictogram(s)	None assigned
Signal Word(s)	None assigned
Hazard Statement(s)	None assigned
Precautionary Statement(s)	None assigned

2.3 Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

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3.2 Mixtures - EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Adenine	0.025	73-24-5	200-796-1	Not yet assigned in the supply chain	Acute Tox. 3; H301
Bromelain	0-0.8	37189-34-7	253-387-5	Not yet assigned in the supply chain	H315-H319-H334-H335
Chloramphenicol	0.03	56-75-7	200-287-4	Not yet assigned in the supply chain	Carc. 1A; H350
Citric acid monohydrate	0.08	5949-29-1	201-069-1	Not yet assigned in the supply chain	Eye Irrit. 2; H319
Gentamycin sulfate	0.001	1405-41-0	215-778-9	Not yet assigned in the supply chain	H317-H334
Neomycin sulfate	0.01	1405-10-3	215-773-1	Not yet assigned in the supply chain	H317-H334
Papain	0-0.8	9001-73-4	232-627-2	Not yet assigned in the supply chain	H315-H319-H334-H335
Phenol	0.05	108-95-2	203-632-7	Not yet assigned in the supply chain	H301 + H311 + H331-H314-H341-H373-H411

H301: Toxic if swallowed. H302: Harmful if swallowed. H311: Toxic in contact with skin. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H331: Toxic if inhaled. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H341: Suspected of causing genetic defects. H350: May cause cancer. H360: May damage fertility or the unborn child. H361: Suspected of damaging fertility or the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H411: Toxic to aquatic life with long-lasting effects

4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation

Remove from exposure. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Keep warm and at rest. Get medical advice/attention if you feel unwell.

Skin Contact

Wash affected skin with soap and water. Remove contaminated clothing and wash clothing before reuse. If irritation (redness, rash, blistering) develops, get medical attention.

Eye Contact

Flush eyes with water for at least 15 minutes while holding eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

Rinse mouth. Give plenty of water to drink. Do not give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Non-flammable. As appropriate for surrounding fire. Water spray, foam, dry powder or CO₂.

Unsuitable extinguishing Media

Do not use water jet. Direct water jet may spread the fire.

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5.2	Special hazards arising from the substance or mixture	Combustion or thermal decomposition will evolve toxic vapours.
5.3	Advice for fire-fighters	Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Avoid all contact. Do not allow run-off from fire fighting to enter drains or water courses.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Avoid all contact. Ensure suitable personal protection during removal of spillages. See Section: 8
6.2	Environmental precautions	Avoid release to the environment.
6.3	Methods and material for containment and cleaning up	Absorb spillage in suitable inert material. Transfer to a lidded container for disposal or recovery. Ventilate the area and wash spill site after material pick-up is complete. Avoid release to the environment.
6.4	Reference to other sections	See Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

7.1	Precautions for safe handling	Avoid all contact. Use personal protective equipment as required. Ensure adequate ventilation. Keep good industrial hygiene. Wash hands thoroughly after handling. Contaminated clothing should be thoroughly cleaned.
7.2	Conditions for safe storage, including any incompatibilities	Keep only in the original container/package in a cool well-ventilated place. Keep away from food, drinks and animal food.
	Storage temperature	Storage temperature should be controlled to between 2 and 8°C.
	Storage life	Keep only in the original container/package in a cool well-ventilated place.
	Incompatible materials	None known.
7.3	Specific end use(s)	See Section: 1.2

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	Control parameters	
8.1.1	National occupational exposure and biological limit values	None assigned.
8.1.2	Recommended monitoring procedures	Not established.
8.1.3	Air contaminants formed	Not established.
8.1.4	DNEL and PNEC	Not established.
8.1.5	Control banding	Not established.
8.2	Exposure controls	
8.2.1	Appropriate engineering controls	Ensure adequate ventilation. Good hygiene practices and housekeeping measures.
8.2.2	Individual protection measures, such as personal protective equipment (PPE)	Use personal protective equipment as required. Avoid all contact. Keep good industrial hygiene. Wash hands before breaks and after work. Keep work clothes separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke at the work place.

Eye/face protection



Not normally required. Recommended: Wear eye protection with side protection (EN166).

Skin protection



Prolonged, direct contact: Wear impervious gloves (EN374).

Respiratory protection

Not normally required. In case of insufficient ventilation, wear suitable respiratory

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Thermal hazards

equipment. Respiratory protective equipment should conform to the appropriate EN standard.

None anticipated.

8.2.3 Environmental Exposure Controls

Avoid release to the environment.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid, Colourless
Odour	Not established
pH	5.8
Melting Point/Freezing Point	Not established
Flash Point	Not established
Evaporation Rate	Not established
Flammability (solid, gas)	Not established
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not established
Vapour density	Not established
Relative vapour density	Not established
Solubility(ies)	Miscible with water
Partition coefficient n-octanol/water	Not applicable
Auto-ignition temperature	Not applicable
Decomposition Temperature	Not established
Viscosity	Not established
Explosive properties	Not explosive
Oxidising properties	Not oxidising

9.2 Other information

None known

10. SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Stable under normal conditions.
10.2	Chemical stability	Stable for 12 months after the date of production when stored at between 2 and 8°C.
10.3	Possibility of hazardous reactions	None known. Hazardous polymerisation will not occur.
10.4	Conditions to avoid	Keep away from heat, sources of ignition and direct sunlight.
10.5	Incompatible materials	Strong acids.
10.6	Hazardous decomposition product(s)	Combustion or thermal decomposition will evolve toxic vapours.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Ingestion	Based on available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LD50 >5000 mg/kg bw/day
Inhalation	Based on available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LD50 >20 mg/l.
Skin Contact	Based on available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LD50 >2000 mg/kg bw/day
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 or skin sensitization	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.

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Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Aspiration hazard
Other information

Based on available data, the classification criteria are not met.
Based on available data, the classification criteria are not met.
Based on available data, the classification criteria are not met.
Based on available data, the classification criteria are not met.
None known.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	Based on available data, the classification criteria are not met. Estimated LC50 (96 hour) Fish > 100 mg/l
12.2	Persistence and degradability	Not established. Some of the ingredients are expected to be resistant to biodegradation.
12.3	Bioaccumulative potential	Not established. Predicted to be unlikely.
12.4	Mobility in soil	The product has high mobility in soil. Miscible with water.
12.5	Results of PBT and VPvB assessment	Not classified as PBT or vPvB. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance.
12.6	Other adverse effects	None known.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	Dispose of contents in accordance with local, state or national legislation. Empty containers may contain hazardous residues. Containers shall be disposed of by incineration as soon as possible.
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14. SECTION 14: TRANSPORT INFORMATION

Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'.

	ADR/RID	IMDG	IATA/ICAO
14.1	UN number	None assigned.	None assigned.
14.2	UN proper shipping name	None assigned.	None assigned.
14.3	Transport hazard class(es)	None assigned.	None assigned.
14.4	Packing group	None assigned.	None assigned.
14.5	Environmental hazards	Not classified.	Not classified.
14.6	Special precautions for user	See Section: 2	
14.7	Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.	Not applicable.

15. SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1	EU regulations	
	REACH Annex XVII (Restriction List): Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)	
	REACH Annex XIV (Authorization List): Contains no substance(s) listed on REACH Annex XIV (Authorisation List)	
	REACH Candidate List (SVHC): Contains no substance(s) listed on the REACH Candidate List	
	PIC Regulation (Prior Informed Consent): Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)	
	POP Regulation (Persistent Organic Pollutants): Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)	
	Ozone Regulation (1005/2009): Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)	
	Explosives Precursors Regulation (2019/1148): Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)	
	Drug Precursors Regulation (273/2004): Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances).	
15.1.2	National regulations	
	Germany	Water hazard class: 1
15.2	Chemical Safety Assessment	None.

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16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

References: Existing Safety Data Sheet (SDS). Existing ECHA registration for Sodium Azide (CAS No. 26628-22-8), the Classification and Labelling Inventory for DiSodium EDTA dehydrate.

This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

Legend to abbreviations and acronyms

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	PBT: Persistent, Bioaccumulative and Toxic
vPvB	vPvT: very Persistent and very Toxic
OECD	Organisation for Economic Cooperation and Development

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

Customers are urged to ensure that the product is entirely suitable for their own purpose. It is the customers' responsibility to ensure that a suitable and sufficient assessment of the risks created by the use of the product is undertaken. The use of the reagent and the interpretation of results must be carried out by properly trained and qualified personnel in accordance with the requirements of the country where the reagent is in use.

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Annex to the extended Safety Data Sheet (eSDS)

Not applicable

Revision History

Revision	Date	Description
0	MAY 2025	Initial release