

# SAFETY DATA SHEET

Document reference number: MSDS441/443

Issue number: 3/08/2015



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

<b>1.1</b>	<b>Product identifier</b>	
	Product code(s) & Product Name	441 Papenzyme-plus 443 Bromelite
	CAS No.	Mixture
	EINECS No.	Mixture
	Product Description	Papenzyme-plus: <ul style="list-style-type: none"><li>• A clear, colourless solution containing Papain, Sodium chloride, EDTA, various other salts for buffering, Chloramphenicol, Trimethoprim and Phenol as preservatives.</li></ul> Bromelite: <ul style="list-style-type: none"><li>• A clear, colourless solution containing Bromelain, Sodium chloride, EDTA, various other salts for buffering, Chloramphenicol, Trimethoprim and Phenol as preservatives.</li></ul>
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against</b>	
	Identified Use(s)	Enzyme solution for serological techniques.
	Uses Advised Against	Anything other than the above.
<b>1.3</b>	<b>Details of the supplier of the safety data sheet</b>	
	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)	<a href="mailto:Info@lornelabs.com">Info@lornelabs.com</a>
<b>1.4</b>	<b>Emergency telephone number</b>	+44(0) 0118 921 2264
	Languages spoken	Available 0900 – 1700 (GMT) English

## 2. SECTION 2: HAZARDS IDENTIFICATION

<b>2.1</b>	<b>Classification of the substance or mixture</b>	
<b>2.1.1</b>	<b>Regulation (EC) No. 1272/2008 (CLP)</b>	Not classified as hazardous for supply/use.
<b>2.2</b>	<b>Label elements</b>	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
<b>2.3</b>	<b>Other hazards</b>	None known.

# SAFETY DATA SHEET

Document reference number: MSDS441/443

Issue number: 3/08/2015



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

## 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures Substances in preparations / 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

# SAFETY DATA SHEET

Document reference number: MSDS441/443

Issue number: 3/08/2015



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

5.2	Unsuitable extinguishing Media <b>Special hazards arising from the substance or mixture</b>	powder or CO <sub>2</sub> . Do not use water jet. Direct water jet may spread the fire. Combustion or thermal decomposition will evolve toxic vapours.
5.3	<b>Advice for fire-fighters</b>	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	<b>Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Avoid all contact. Ensure suitable personal protection during removal of spillages. See Section: 8
6.2	<b>Environmental precautions</b>	Avoid release to the environment.
6.3	<b>Methods and material for containment and cleaning up</b>	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	<b>Reference to other sections</b>	See Section: 8, 13

## 7. SECTION 7: HANDLING AND STORAGE

7.1	<b>Precautions for safe handling</b>	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	<b>Conditions for safe storage, including any incompatibilities</b>	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	<b>Specific end use(s)</b>	See Section: 1.2

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	<b>Control parameters</b>	
8.1.1	<b>Occupational Exposure Limits</b>	None assigned.
8.1.2	<b>Biological limit value</b>	Not established.
8.1.3	<b>PNECs and DNELs</b>	Not established.
8.2	<b>Exposure controls</b>	
8.2.1	<b>Appropriate engineering controls</b>	Ensure adequate ventilation. Good hygiene practices and housekeeping measures.
8.2.2	<b>Individual protection measures, such as personal protective equipment (PPE)</b>	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).

# SAFETY DATA SHEET

Document reference number: MSDS441/443

Issue number: 3/08/2015



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

Respiratory protection



Not normally required. In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protective equipment should conform to the appropriate EN standard.

Thermal hazards

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, Straw coloured.
Odour	Not established.
Odour Threshold	Not established.
pH	5.8.
Melting Point/Freezing Point	Not established.
Initial boiling point and boiling range	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 density	Not established.
Solubility(ies)	Miscible with water.
Partition coefficient: n-octanol/water	Not established.
Auto-ignition temperature	Not established.
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, strong oxidizing agents.
10.6 Hazardous decomposition product(s)	Combustion or thermal decomposition will evolve toxic vapours.

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects (Substances in preparations / mixtures)

#### Acute toxicity

Ingestion

Based on available data, the classification criteria are not met.  
Acute Toxicity Estimate Mixture Calculation: LD50 >2000 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

#### 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.

# SAFETY DATA SHEET

Document reference number: MSDS441/443

Issue number: 3/08/2015



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

	<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
	<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
	<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
	<b>STOT - single exposure</b>	Based on available data, the classification criteria are not met.
	<b>STOT - repeated exposure</b>	Based on available data, the classification criteria are not met.
	<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
11.2	<b>Other information</b>	None known.

## 12. SECTION 12: ECOLOGICAL INFORMATION

12.1	<b>Toxicity</b>	Based on available data, the classification criteria are not met. Estimated LC50 (96 hour) Fish > 100 mg/l
12.2	<b>Persistence and degradability</b>	Not established. Some of the ingredients are expected to be resistant to biodegradation.
12.3	<b>Bioaccumulative potential</b>	Not established. Predicted to be unlikely.
12.4	<b>Mobility in soil</b>	The product has high mobility in soil. Miscible with water.
12.5	<b>Results of PBT and VPVB assessment</b>	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	<b>Other adverse effects</b>	None known.

## 13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	<b>Waste treatment methods</b>	Disposal should be in accordance with local, state or national legislation.
13.2	<b>Additional Information</b>	Empty containers may contain hazardous residues. Containers shall be disposed of by incineration as soon as possible.

## 14. SECTION 14: TRANSPORT INFORMATION

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

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA/ICAO</b>
14.1	<b>UN number</b>	None assigned.	None assigned.
14.2	<b>UN proper shipping name</b>	None assigned.	None assigned.
14.3	<b>Transport hazard class(es)</b>	None assigned.	None assigned.
14.4	<b>Packing group</b>	None assigned.	None assigned.
14.5	<b>Environmental hazards</b>	Not classified.	Not classified.
14.6	<b>Special precautions for user</b>	See Section: 2	
14.7	<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.	Not applicable.
14.8	<b>Additional Information</b>	None.	

## 15. SECTION 15: REGULATORY INFORMATION

15.1	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
15.1.1	<b>EU regulations</b>	
	Authorisations and/or Restrictions On Use	None.
15.1.2	<b>National regulations</b>	
	Germany	Water hazard class: 1
15.2	<b>Chemical Safety Assessment</b>	None.

## 16. SECTION 16: OTHER INFORMATION

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

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

# SAFETY DATA SHEET

Document reference number: MSDS441/443

Issue number: 3/08/2015



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

---

## LEGEND

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.

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Lorne Laboratories Ltd gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Lorne Laboratories Ltd accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

## Annex to the extended Safety Data Sheet (eSDS)

Not applicable

## Date of First Issue

28 August 2001