

# SAFETY DATA SHEET

## Biogen Liquid

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

#### 1.1. Product identifier

Product name Biogen

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

Identified uses Enzyme Treatment

#### 1.3. Details of the supplier of the safety data sheet

Supplier Aztec Chemicals  
Unit 16, University Way  
Orion Park  
Crewe  
Cheshire  
CW1 6NG  
+ 44 (0) 1270 655500 (T)  
+ 44 (0) 1270 655501 (F)  
info@aztecchemicals.com

#### 1.4. Emergency telephone number

Emergency telephone +44 (0)7831 300868

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification

Physical hazards Not Classified

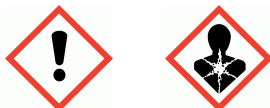
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 STOT SE 3 - H335

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) R42. Xi;R36.

#### 2.2. Label elements

##### Pictogram



Signal word Danger

Hazard statements  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.

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<b>Precautionary statements</b>	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P102 Keep out of reach of children. P501 Dispose of contents/container in accordance with local regulations. P260 Do not breathe spray. P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective clothing, gloves, eye and face protection.
<b>Supplemental label information</b>	RCH002b For professional users only.
<b>Contains</b>	SUBTILISIN

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>SUBTILISIN</b>		<b>1-5%</b>
CAS number: 9014-01-1	EC number: 232-752-2	
<b>Classification</b> Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 STOT SE 3 - H335	<b>Classification (67/548/EEC or 1999/45/EC)</b> R42 Xi;R37/38,R41	
<b>PROPAN-2-OL</b>		<b>&lt;1%</b>
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25
<b>Classification</b> Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	<b>Classification (67/548/EEC or 1999/45/EC)</b> F;R11 Xi;R36 R67	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Consult a physician for specific advice.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Get medical attention if any discomfort continues. Never give anything by mouth to an unconscious person.
<b>Skin contact</b>	Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	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

<b>General information</b>	Effects may be delayed.
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<b>Inhalation</b>	Shortness of breath. Wheezing/brBeathing difficulties. Coughing. Development of symptoms may be delayed for 24 to 48 hours.
<b>Ingestion</b>	Irritation.
<b>Skin contact</b>	May cause skin irritation. Redness.
<b>Eye contact</b>	Redness. Irritating to eyes.

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

<b>Notes for the doctor</b>	Treat symptomatically.
<b>Specific treatments</b>	Provide eyewash station.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

<b>Suitable extinguishing media</b>	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Water spray. Do not use water jet as an extinguisher, as this will spread the fire.
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### **5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards</b>	May cause respiratory allergy.
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### **5.3. Advice for firefighters**

<b>Protective actions during firefighting</b>	Containers close to fire should be removed or cooled with water.
<b>Special protective equipment for firefighters</b>	Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Avoid contact with skin or inhalation of spillage, dust or vapour.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet.
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### **6.2. Environmental precautions**

<b>Environmental precautions</b>	Avoid spreading dust or contaminated materials. Do not discharge into drains or watercourses or onto the ground.
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### **6.3. Methods and material for containment and cleaning up**

<b>Methods for cleaning up</b>	Flush away spillage with plenty of water. Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material.
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### **6.4. Reference to other sections**

<b>Reference to other sections</b>	For personal protection, see Section 8.
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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

<b>Usage precautions</b>	Read and follow manufacturer's recommendations. Avoid the formation of mists. Provide adequate ventilation.
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### **7.2. Conditions for safe storage, including any incompatibilities**

<b>Storage precautions</b>	Store in tightly-closed, original container in a dry, cool and well-ventilated place.
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### **7.3. Specific end use(s)**

## Biogen Liquid

**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

##### Occupational exposure limits

##### SUBTILISIN

Long-term exposure limit (8-hour TWA): WEL 40 ng/m<sup>3</sup> crystalline enzyme

##### PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

#### PROPAN-2-OL (CAS: 67-63-0)

**DNEL**

Industry - Dermal; Long term systemic effects: 888 mg/kg/day  
 Industry - Inhalation; Long term systemic effects: 500 mg/m<sup>3</sup>  
 Consumer - Dermal; Long term systemic effects: 319 mg/kg/day  
 Consumer - Dermal; Long term systemic effects: 26 mg/kg/day  
 Consumer - Inhalation; Long term systemic effects: 89 mg/m<sup>3</sup>

**PNEC**

- Fresh water; 140.9 mg/l
- Marine water; 140.9 mg/l
- Intermittent release; 140.9 mg/l
- Sediment (Freshwater); 552 mg/kg
- Sediment (Marinewater); 552 mg/kg
- STP; 2251 mg/l
- Soil; 28 mg/kg

#### 8.2. Exposure controls

<b>Appropriate engineering controls</b>	No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation.
<b>Personal protection</b>	When using do not smoke
<b>Eye/face protection</b>	The following protection should be worn: Chemical splash goggles. Provide eyewash station.
<b>Hand protection</b>	Use protective gloves.
<b>Other skin and body protection</b>	Wear apron or protective clothing in case of contact.
<b>Hygiene measures</b>	Provide eyewash station. Wash hands at the end of each work shift and before eating, smoking and using the toilet.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn. Particulate filter, type P3.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Odour</b>	Characteristic.

#### 9.2. Other information

### SECTION 10: Stability and reactivity

## Biogen Liquid

### 10.1. Reactivity

**Reactivity** Stable at normal ambient temperatures and when used as recommended.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Decomposition may occur on exposure to conditions or materials listed below. Under normal conditions of storage and use, no hazardous reactions will occur.

### 10.4. Conditions to avoid

**Conditions to avoid** Not known.

### 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.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Not known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Inhalation** May cause sensitisation by inhalation. Shortness of breath. Coughing. Development of symptoms may be delayed for 24 to 48 hours.

**Ingestion** No harmful effects expected from quantities likely to be ingested by accident. Irritating.

**Skin contact** Slightly irritating. Redness.

**Eye contact** Irritating to eyes. Redness.

## 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 available.

### 12.2. Persistence and degradability

**Persistence and degradability** The product is biodegradable.

### 12.3. Bioaccumulative potential

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

### 12.4. Mobility in soil

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

## Biogen Liquid

### 13.1. Waste treatment methods

<b>General information</b>	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
<b>Disposal methods</b>	Following dilution, discharge to the sewer with plenty of water may be permitted.

### SECTION 14: Transport information

<b>General</b>	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

No transport warning sign required.

#### 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 MARPOL73/78 and the IBC Code

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

Not applicable.

### SECTION 15: Regulatory information

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

<b>National regulations</b>	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
<b>EU legislation</b>	Dangerous Substances Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. System of specific information relating to Dangerous Preparations. 2001/58/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). Commission Regulation (EU) No 453/2010 of 20 May 2010.
<b>Guidance</b>	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131.

#### 15.2. Chemical safety assessment

### SECTION 16: Other information

## Biogen Liquid

<b>Revision date</b>	24/06/2015
<b>Revision</b>	1
<b>SDS number</b>	10481
<b>SDS status</b>	Approved.
<b>Risk phrases in full</b>	R36 Irritating to eyes. R42 May cause sensitisation by inhalation.
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.