

**Product name:** Agilent Protein 230 Reagents  
**Part no.:** 5067-1518

This product is composed of the following:

### Kit Components, Reagents

Box/Module Part number	Box/Module Name	Kit Component Part Number	Kit Component Name	Qty Units	CLP
52938-80026	Reagents P230	Not available. Not available.	Protein 230 Dye Concentrate Protein 230 Gel Matrix	1 4	No No
G2938-80041	Reagents P230 frozen	Not available. Not available.	Protein 230 Sample Buffer Protein 230 Ladder	4 1	No No

Article SDSs, if maintained, are available on [www.agilent.com](http://www.agilent.com). We recommend using the article product code when searching. SDSs are only available for a limited set of countries.

### Transport Information for the Kit:

**Dangerous Goods classification for:** 5067-1518

ADR/RID	IMDG	IATA
Not regulated.	Not regulated.	Not regulated.

### Table of contents

Kit Component Name	Page
Protein 230 Gel Matrix.....	2
Protein 230 Dye Concentrate.....	14
Protein 230 Ladder.....	28
Protein 230 Sample Buffer.....	41

SDSs for each individual Kit component follow this cover sheet.

# SAFETY DATA SHEET

Protein 230 Gel Matrix

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

### 1.1 Product identifier

**Product name** : Protein 230 Gel Matrix  
**Part no.** : Not available.

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

**Identified uses** : Analytical reagent.  
 Research and Development  
 0.65 ml  
**Uses advised against** : None known.

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

Agilent Technologies LDA UK Ltd.  
 5500 Lakeside Cheadle Royal Business Park,  
 Cheadle, Cheshire, SK8 3GR  
 United Kingdom  
 Tel: +44 (0) 345 712 5292  
**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +44 20 3807 3798

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown toxicity** : Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%  
 Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%

**Ingredients of unknown ecotoxicity** : Contains 2.2% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards.

#### Precautionary statements

**Prevention** : Not applicable.  
**Response** : Not applicable.  
**Storage** : Not applicable.  
**Disposal** : Not applicable.

**Protein 230 Gel Matrix**

**SECTION 2: Hazards identification**

**Supplemental label elements** : Safety data sheet available on request.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

**2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** : None known.

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

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Trometamol	EC: 201-064-4 CAS: 77-86-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard  
Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

## SECTION 4: First aid measures

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

#### Over-exposure signs/symptoms

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

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

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

Protein 230 Gel Matrix

## SECTION 6: Accidental release measures

**Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8).  
**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** : Industrial applications, Professional applications.  
**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

#### Biological exposure indices

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Result
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**Protein 230 Gel Matrix**

**SECTION 8: Exposure controls/personal protection**

trometamol	DNEL - General population - Long term - Oral	8.3 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	29 mg/m <sup>3</sup>
	DNEL - General population - Long term - Dermal	83.3 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	117.5 mg/m <sup>3</sup>
	DNEL - Workers - Long term - Dermal	166.7 mg/kg bw/day

**PNECs**

Not available.

**8.2 Exposure controls**

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**9.1 Information on basic physical and chemical properties**

**Appearance**

- Physical state** : Liquid.
- Colour** : Not available.
- Odour** : Not available.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.

## SECTION 9: Physical and chemical properties

<b>Initial boiling point and boiling range</b>	: Not available.
<b>Flammability</b>	: Not applicable.
<b>Lower and upper explosion limit/flammability limit</b>	: Not available.
<b>Flash point</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>pH</b>	: Not available.
<b>Viscosity</b>	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available.

<b>Solubility</b>	<b>Media</b>	<b>Result</b>
	water	Soluble

<b>Partition coefficient: n-octanol/water</b>	: Not applicable.
<b>Vapour pressure</b>	: 2.3 kPa (17.5 mm Hg) [Based on solvent.]
<b>Relative density</b>	: Not available.
<b>Vapour density</b>	: Not available.

### Particle characteristics

**Median particle size** : Not applicable.

### 9.2 Other information

#### 9.2.1 Information with regard to physical hazard classes

<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.

#### 9.2.2 Other safety characteristics

<b>Miscible with water</b>	: Yes.
<b>Evaporation rate</b>	: Not available.
<b>Physical/chemical properties comments</b>	: Not available.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: No specific data.
<b>10.5 Incompatible materials</b>	: May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	
trometamol	Rat - Male, Female - Dermal - LD50	>5000 mg/kg

**Conclusion/Summary** : Not available.

**[Product]**

#### Acute toxicity estimates

N/A

#### Skin corrosion/irritation

Product/ingredient name	Result	
trometamol	Rabbit - Skin - Moderate irritant	Amount/concentration applied: 25 %
	Rabbit - Skin - Severe irritant	Amount/concentration applied: 500 mg

**Conclusion/Summary** : Not available.

**[Product]**

#### Serious eye damage/eye irritation

**Conclusion/Summary** : Not available.

**[Product]**

#### Respiratory corrosion/irritation

**Conclusion/Summary** : Not available.

**[Product]**

#### Respiratory or skin sensitization

##### Skin

**Conclusion/Summary** : Not available.

**[Product]**

##### Respiratory

**Conclusion/Summary** : Not available.

**[Product]**

#### Germ cell mutagenicity

**Conclusion/Summary** : Not available.

**[Product]**

#### Carcinogenicity

**Conclusion/Summary** : Not available.

**[Product]**

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

**[Product]**

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

## SECTION 11: Toxicological information

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

**Conclusion/Summary [Product]** : Not available.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result
trometamol	Acute - EC50 - Fresh water - OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test] Daphnia - <i>Daphnia magna</i> >980 mg/l [48 hours]
	Acute - NOEC - Fresh water -

Protein 230 Gel Matrix

## SECTION 12: Ecological information

OECD [Daphnia sp.  
Acute Immobilization  
Test and Reproduction  
Test]  
Daphnia - *Daphnia magna*  
520 mg/l [48 hours]

**Conclusion/Summary [Product]** : Not available.

### 12.2 Persistence and degradability

**Product/ingredient name**

**Result**

trometamol	OECD [ Ready Biodegradability - Manometric Respirometry Test]	97.1% [28 days] - Readily	Aerobic - 30 mg/l
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**Conclusion/Summary [Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
trometamol	-	-	Readily

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient**

Product/ingredient name	logKoc	Koc
trometamol	0.61	4.06623

**Results of PMT and vPvM assessment**

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
trometamol	No	N/A	Yes	No	N/A	N/A	Yes

**Mobility** : Not available.

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

### 12.5 Results of PBT and vPvB assessment

**Regulation (EC) No. 1907/2006 [REACH]**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
trometamol	No	N/A	N/A	No	N/A	N/A	N/A

**Regulation (EC) No. 1272/2008 [CLP]**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
trometamol	No	N/A	N/A	No	N/A	N/A	N/A

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PBT or vPvB.

**Regulation (EC) No. 1272/2008 [CLP]**

### 12.6 Endocrine disrupting properties

Not available.

**Protein 230 Gel Matrix**

**SECTION 12: Ecological information**

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

**12.7 Other adverse effects**

No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Product

**Methods of disposal** : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. The generation of waste should be avoided or minimised wherever possible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

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

#### UK (GB)/REACH

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

###### Ozone depleting substances

Not listed.

###### Prior Informed Consent (PIC)

Not listed.

###### Persistent Organic Pollutants

Not listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

None of the components are listed / The components are not impacted by a restriction

**Labelling** : Not applicable.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

#### EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

##### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

##### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### Inventory list

**United States** : All components are active or exempted.

Protein 230 Gel Matrix

**SECTION 16: Other information**

Indicates information that has changed from previously issued version.

- Abbreviations and acronyms**
- : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
  - : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
  - : ATE = Acute Toxicity Estimate
  - : GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
  - : DMEL = Derived Minimal Effect Level
  - : DNEL = Derived No Effect Level
  - : EUH statement = GB CLP-specific Hazard statement
  - : IATA = International Air Transport Association
  - : IMDG = International Maritime Dangerous Goods
  - : IMO = International Maritime Organization
  - : N/A = Not available
  - : PBT = Persistent, Bioaccumulative and Toxic
  - : PNEC = Predicted No Effect Concentration
  - : RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
  - : RRN = REACH Registration Number
  - : SGG = Segregation Group
  - : vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

Classification	Justification
Not classified.	

**Full text of abbreviated H statements**

H315	Causes skin irritation.
H319	Causes serious eye irritation.

**Full text of classifications**

Eye Irrit. 2 Skin Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2
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- Date of issue/ Date of revision** : 30/06/2025
- Date of previous issue** : No previous validation
- Version** : 1

**Notice to reader**

**Disclaimer:** The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

# SAFETY DATA SHEET

Protein 230 Dye Concentrate

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

### 1.1 Product identifier

**Product name** : Protein 230 Dye Concentrate  
**Part no.** : Not available.

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

**Identified uses** : Analytical reagent.  
Research and Development  
0.09 ml  
**Uses advised against** : None known.

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

Agilent Technologies LDA UK Ltd.  
5500 Lakeside Cheadle Royal Business Park,  
Cheadle, Cheshire, SK8 3GR  
United Kingdom  
Tel: +44 (0) 345 712 5292  
**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +44 20 3807 3798

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown toxicity** : Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity:  
1 - 10%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards.

#### Precautionary statements

**Prevention** : Not applicable.  
**Response** : Not applicable.  
**Storage** : Not applicable.  
**Disposal** : Not applicable.  
**Supplemental label elements** : Safety data sheet available on request.

Protein 230 Dye Concentrate

## SECTION 2: Hazards identification

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** : Not applicable.  
**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Sodium dodecyl sulphate	EC: 205-788-1 CAS: 151-21-3	<10	Flam. Sol. 2, H228 Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 3, H412 <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Protein 230 Dye Concentrate**

**SECTION 4: First aid measures**

- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

**Over-exposure signs/symptoms**

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**5.2 Special hazards arising from the substance or mixture**

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides  
metal oxide/oxides

**5.3 Advice for firefighters**

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures**

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Protein 230 Dye Concentrate**

**SECTION 6: Accidental release measures**

**6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**6.3 Methods and material for containment and cleaning up**

**Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

**Protective measures** : Put on appropriate personal protective equipment (see Section 8).  
**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**7.3 Specific end use(s)**

**Recommendations** : Industrial applications, Professional applications.  
**Industrial sector specific solutions** : Not available.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**Occupational exposure limits**

No exposure limit value known.

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Product/ingredient name	Result
-------------------------	--------

**Protein 230 Dye Concentrate**

**SECTION 8: Exposure controls/personal protection**

sodium dodecyl sulphate	DNEL - General population - Long term - Oral	24 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	85 mg/m <sup>3</sup>
	DNEL - Workers - Long term - Inhalation	285 mg/m <sup>3</sup>
	DNEL - General population - Long term - Dermal	2440 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	4060 mg/kg bw/day

**PNECs**

Not available.

**8.2 Exposure controls**

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**9.1 Information on basic physical and chemical properties**

**Appearance**

**Physical state** : Liquid.

**Colour** : Blue.

**Odour** : Not available.

**Odour threshold** : Not available.

**Melting point/freezing point** : Not available.

**Protein 230 Dye Concentrate**

**SECTION 9: Physical and chemical properties**

- Initial boiling point and boiling range** : Not available.
- Flammability** : Not applicable.
- Lower and upper explosion limit/flammability limit** : Not available.
- Flash point** : Closed cup: 93°C
- Auto-ignition temperature** : 300 to 302°C [Based on solvent.]
- Decomposition temperature** : Not available.
- pH** : Not available.
- Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C): Not available.
- Solubility** :
 

Media	Result
water	Soluble
- Partition coefficient: n-octanol/water** : Not applicable.
- Vapour pressure** : 0.056 kPa (0.42 mm Hg) [Based on solvent.]
- Relative density** : Not available.
- Vapour density** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

**9.2 Other information**

**9.2.1 Information with regard to physical hazard classes**

- Explosive properties** : Not available.
- Oxidising properties** : Not available.

**9.2.2 Other safety characteristics**

- Miscible with water** : Yes.
- Evaporation rate** : Not available.
- Physical/chemical properties comments** : Not available.

**SECTION 10: Stability and reactivity**

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : May react or be incompatible with oxidising materials.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Protein 230 Dye Concentrate**

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

Acute toxicity

<b>Product/ingredient name</b>	<b>Result</b>	
sodium dodecyl sulphate	Rat - Oral - LD50	1288 mg/kg

**Conclusion/Summary** : Not available.

[Product]

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Protein 230 Dye Concentrate	23320.8	N/A	N/A	N/A	27.2
sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5

Skin corrosion/irritation

<b>Product/ingredient name</b>	<b>Result</b>	
sodium dodecyl sulphate	Guinea pig - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 25 mg
	Mouse - Skin - Moderate irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 25 mg
	Rabbit - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 50 mg
	Rabbit - Skin - Moderate irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 25 mg
	Rabbit - Skin - Moderate irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 250 mg
	Guinea pig - Skin - Mild irritant	Duration of treatment/ exposure: 336 hours Amount/concentration applied: 25250 ppm
	Guinea pig - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 25250 ppm
	Guinea pig - Skin - Severe irritant	Duration of treatment/ exposure: 48 hours Amount/concentration applied: 25250 ppm
	Guinea pig - Skin - Severe irritant	Duration of treatment/ exposure: 72 hours Amount/concentration applied: 25250 ppm
	Human - Skin - Mild irritant	Duration of treatment/ exposure: 48 hours Amount/concentration applied: 5 %
	Human - Skin - Severe irritant	Duration of treatment/ exposure: 24 hours Amount/concentration

**Protein 230 Dye Concentrate**

**SECTION 11: Toxicological information**

Rabbit - Skin - Moderate irritant	applied: 10 % Duration of treatment/ exposure: 24 hours Amount/concentration
Rabbit - Skin - Severe irritant	applied: 5 % Duration of treatment/ exposure: 24 hours Amount/concentration
Human - Skin - Mild irritant	applied: 2.5 % Duration of treatment/ exposure: 24 hours Amount/concentration
Human - Skin - Moderate irritant	applied: 0.5 % Duration of treatment/ exposure: 24 hours Amount/concentration
Man - Skin - Mild irritant	applied: 10 pph Duration of treatment/ exposure: 24 hours Amount/concentration
Mouse - Skin - Moderate irritant	applied: 5 % Duration of treatment/ exposure: 24 hours Amount/concentration
Mouse - Skin - Severe irritant	applied: 5 % Duration of treatment/ exposure: 4 hours Amount/concentration
Rabbit - Skin - Mild irritant	applied: 1 pph Duration of treatment/ exposure: 1 hours Amount/concentration
	applied: 5 %

**Conclusion/Summary** : Not available.

**[Product]**

**Ingredient name**

sodium dodecyl sulphate

**Conclusion/Summary**

Irritating to skin.

**Serious eye damage/eye irritation**

**Product/ingredient name**

sodium dodecyl sulphate

**Result**

Rabbit - Eyes - Mild irritant	Amount/concentration applied: 250 ug
Rabbit - Eyes - Moderate irritant	Duration of treatment/ exposure: 24 hours Amount/concentration
	applied: 100 mg
Rabbit - Eyes - Moderate irritant	Amount/concentration applied: 10 mg
Rabbit - Eyes - Severe irritant	Duration of treatment/ exposure: 1 hours Amount/concentration
	applied: 1 %
Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 1 hours Amount/concentration
	applied: 5 pph
Rabbit - Eyes - Severe irritant	Duration of treatment/ exposure: 1 hours Amount/concentration
	applied: 1 %

**Conclusion/Summary** : Not available.

**[Product]**

**Protein 230 Dye Concentrate**

**SECTION 11: Toxicological information**

<b>Ingredient name</b>	<b>Conclusion/Summary</b>
sodium dodecyl sulphate	Irritating to eyes.

Respiratory corrosion/irritation

**Conclusion/Summary** : Not available.  
**[Product]**

Respiratory or skin sensitization

**Skin**

**Conclusion/Summary** : Not available.  
**[Product]**

**Respiratory**

**Conclusion/Summary** : Not available.  
**[Product]**

Germ cell mutagenicity

**Conclusion/Summary** : Not available.  
**[Product]**

Carcinogenicity

**Conclusion/Summary** : Not available.  
**[Product]**

Reproductive toxicity

**Conclusion/Summary** : Not available.  
**[Product]**

Specific target organ toxicity (single exposure)

<b>Product/ingredient name</b>	<b>Result</b>
sodium dodecyl sulphate	STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

Protein 230 Dye Concentrate

**SECTION 11: Toxicological information**

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

**SECTION 12: Ecological information**

12.1 Toxicity

**Product/ingredient name**

**Result**

sodium dodecyl sulphate

Acute - LC50 - Fresh water	-	-
Fish - Carp, hawk fish - <i>Cirrhinus mrigala</i> - Larvae		
Age: 2 days; Size: 4.5 mm; Weight: 51 mg		
590 µg/l [96 hours]		
Mortality		
Acute - LC50 - Marine water	-	-
Crustaceans - Brine shrimp - <i>Artemia salina</i> - Adult		
Age: 25 days; Size: 3.5 to 4.5 mm		
900 µg/l [48 hours]		
Mortality		
Acute - EC50 - Marine water	-	-
Algae - Diatom - <i>Skeletonema costatum</i>		
1200 µg/l [96 hours]		
Population		
Chronic - NOEC - Marine water	-	-
Algae - Sea Lettuce - <i>Ulva fasciata</i> - Zoea		
1.25 mg/l [96 hours]		
Reproduction		
Chronic - NOEC - Fresh water	-	-

Protein 230 Dye Concentrate

**SECTION 12: Ecological information**

water  
 OECD  
 Crustaceans - Water  
 flea - *Pseudosida ramosa* - Neonate  
 Age: <24 hours  
 1 mg/l [21 days]  
 Reproduction

Chronic - NOEC - Fresh water -  
 water  
 OECD  
 Fish - Eastern mosquitofish -  
*Gambusia holbrooki*  
 Weight: 0.14 g  
 0.8 mg/l [28 days]  
 Enzymes

**Conclusion/Summary [Product]** : Not available.

**12.2 Persistence and degradability**

**Product/ingredient name**

**Result**

sodium dodecyl sulphate                      OECD [ Ready Biodegradability - CO2 Evolution Test]                      95% [28 days] - Readily Aerobic - 20 mg/l

**Conclusion/Summary [Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
sodium dodecyl sulphate	-	-	Readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
sodium dodecyl sulphate	-2.03	-	Low

**12.4 Mobility in soil**

**Soil/water partition coefficient**

Product/ingredient name	logK <sub>oc</sub>	K <sub>oc</sub>
sodium dodecyl sulphate	3.1	1234.14

**Results of PMT and vPvM assessment**

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
sodium dodecyl sulphate	No	N/A	No	No	No	N/A	No

**Mobility** : Not available.

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

**12.5 Results of PBT and vPvB assessment**

**Regulation (EC) No. 1907/2006 [REACH]**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
sodium dodecyl sulphate	No	N/A	N/A	No	N/A	N/A	N/A

**Regulation (EC) No. 1272/2008 [CLP]**

**Protein 230 Dye Concentrate**

**SECTION 12: Ecological information**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
sodium dodecyl sulphate	No	N/A	N/A	No	N/A	N/A	N/A

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PBT or vPvB.  
**Regulation (EC) No. 1272/2008 [CLP]**

**12.6 Endocrine disrupting properties**

Not available.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

**12.7 Other adverse effects**

No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Product

**Methods of disposal** : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. The generation of waste should be avoided or minimised wherever possible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	ADR/RID	IMDG	IATA
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Protein 230 Dye Concentrate

## SECTION 14: Transport information

14.7 Transport in bulk according to IMO instruments : Not available.

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
UK (GB)/REACH

### Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

#### Substances of very high concern

None of the components are listed.

#### Ozone depleting substances

Not listed.

#### Prior Informed Consent (PIC)

Not listed.

#### Persistent Organic Pollutants

Not listed.

#### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

None of the components are listed / The components are not impacted by a restriction

Labelling : Not applicable.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

#### EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

##### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

##### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Protein 230 Dye Concentrate

## SECTION 15: Regulatory information

### Inventory list

United States : Not determined.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = GB CLP-specific Hazard statement
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods
- IMO = International Maritime Organization
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification

Classification	Justification
Not classified.	

### Full text of abbreviated H statements

H228	Flammable solid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

### Full text of classifications

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Flam. Sol. 2	FLAMMABLE SOLIDS - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 30/06/2025

Date of previous issue : No previous validation

Version : 1

### Notice to reader

**Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.**

# SAFETY DATA SHEET

Protein 230 Ladder

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

### 1.1 Product identifier

**Product name** : Protein 230 Ladder  
**Part no.** : Not available.

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

**Identified uses** : Analytical reagent.  
Research and Development  
0.18 ml  
**Uses advised against** : None known.

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

Agilent Technologies LDA UK Ltd.  
5500 Lakeside Cheadle Royal Business Park,  
Cheadle, Cheshire, SK8 3GR  
United Kingdom  
Tel: +44 (0) 345 712 5292  
**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +44 20 3807 3798

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown toxicity** : Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%  
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards.

#### Precautionary statements

**Prevention** : Not applicable.  
**Response** : Not applicable.  
**Storage** : Not applicable.  
**Disposal** : Not applicable.  
**Supplemental label elements** : Safety data sheet available on request.

Protein 230 Ladder

## SECTION 2: Hazards identification

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Trometamol	EC: 201-064-4 CAS: 77-86-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
Lithium dodecyl sulphate	EC: 218-058-2 CAS: 2044-56-6	≤3	Flam. Sol. 1, H228 Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412  <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
metal oxide/oxides

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

- Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

- Recommendations** : Industrial applications, Professional applications.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020) TWA 8 hours: 10 mg/m <sup>3</sup> . Form: Mist.

#### Biological exposure indices

## SECTION 8: Exposure controls/personal protection

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

#### Product/ingredient name

#### Result

trometamol	DNEL - General population - Long term - Oral	8.3 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	29 mg/m <sup>3</sup>
	DNEL - General population - Long term - Dermal	83.3 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	117.5 mg/m <sup>3</sup>
lithium dodecyl sulphate	DNEL - Workers - Long term - Dermal	166.7 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	2.26 mg/m <sup>3</sup>
	DNEL - General population - Long term - Oral	2.6 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	7.6 mg/m <sup>3</sup>
	DNEL - General population - Long term - Dermal	260 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	433.3 mg/kg bw/day

### PNECs

Not available.

## 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Protein 230 Ladder

## SECTION 8: Exposure controls/personal protection

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : Not available.
- Odour** : Not available.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability** : Not applicable.
- Lower and upper explosion limit/flammability limit** : Not available.
- Flash point** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : Not available.
- Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C): Not available.

<b>Solubility</b>	<b>Media</b>	<b>Result</b>
	water	Soluble

- Partition coefficient: n-octanol/water** : Not applicable.
- Vapour pressure** : 2.3 kPa (17.5 mm Hg) [Based on solvent.]
- Relative density** : Not available.
- Vapour density** : Not available.

#### Particle characteristics

- Median particle size** : Not applicable.

### 9.2 Other information

#### 9.2.1 Information with regard to physical hazard classes

- Explosive properties** : Not available.
- Oxidising properties** : Not available.

#### 9.2.2 Other safety characteristics

- Miscible with water** : Yes.
- Evaporation rate** : Not available.

Protein 230 Ladder

## SECTION 9: Physical and chemical properties

**Physical/chemical properties comments** : Not available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : No specific data.

**10.5 Incompatible materials** : May react or be incompatible with oxidising materials.

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	
glycerol	Rat - Oral - LD50	12600 mg/kg
trometamol	Rat - Male, Female - Dermal - LD50	>5000 mg/kg
lithium dodecyl sulphate	Rat - Oral - LD50	>5000 mg/kg

**Conclusion/Summary [Product]** : Not available.

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Protein 230 Ladder	50024.1	N/A	N/A	N/A	129.4
glycerol	12600	N/A	N/A	N/A	N/A
lithium dodecyl sulphate	500	N/A	N/A	N/A	1.5

#### Skin corrosion/irritation

Product/ingredient name	Result	
glycerol	Rabbit - Skin - Mild irritant	Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
trometamol	Rabbit - Skin - Moderate irritant	Amount/concentration applied: 25 %
	Rabbit - Skin - Severe irritant	Amount/concentration applied: 500 mg

**Conclusion/Summary [Product]** : Not available.

#### Serious eye damage/eye irritation

**Product/ingredient name** **Result**

Protein 230 Ladder

## SECTION 11: Toxicological information

glycerol

Rabbit - Eyes - Mild irritant

Duration of treatment/  
exposure: 24 hours  
Amount/concentration  
applied: 500 mg

**Conclusion/Summary** : Not available.  
**[Product]**

### Respiratory corrosion/irritation

**Conclusion/Summary** : Not available.  
**[Product]**

### Respiratory or skin sensitization

#### Skin

**Conclusion/Summary** : Not available.  
**[Product]**

#### Respiratory

**Conclusion/Summary** : Not available.  
**[Product]**

### Germ cell mutagenicity

**Conclusion/Summary** : Not available.  
**[Product]**

### Carcinogenicity

**Conclusion/Summary** : Not available.  
**[Product]**

### Reproductive toxicity

**Conclusion/Summary** : Not available.  
**[Product]**

### Specific target organ toxicity (single exposure)

Product/ingredient name	Result
lithium dodecyl sulphate	STOT SE 3, H335 (Respiratory tract irritation)

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

Protein 230 Ladder

## SECTION 11: Toxicological information

**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

**Conclusion/Summary [Product]** : Not available.  
**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Reproductive toxicity** : No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result		
glycerol	Acute - LC50 - Fresh water OECD [Fish, Acute Toxicity Test] Fish - Trout - <i>Oncorhynchus mykiss</i> 54000 mg/l [96 hours]	-	-
trometamol	Acute - EC50 - Fresh water OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test] Daphnia - <i>Daphnia magna</i> >980 mg/l [48 hours]	-	-
	Acute - NOEC - Fresh water OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test] Daphnia - <i>Daphnia magna</i> 520 mg/l [48 hours]	-	-
<b>Conclusion/Summary [Product]</b>	: Not available.		

Protein 230 Ladder

## SECTION 12: Ecological information

### 12.2 Persistence and degradability

Product/ingredient name	Result		
glycerol	Ready Biodegradability - 93% [30 days] Closed Bottle Test		-
trometamol	OECD [ Ready Biodegradability - Manometric Respirometry Test]	97.1% [28 days] - Readily	Aerobic - 30 mg/l

**Conclusion/Summary [Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
trometamol	-	-	Readily
lithium dodecyl sulphate	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
glycerol	-1.76	-	Low

### 12.4 Mobility in soil

#### Soil/water partition coefficient

Product/ingredient name	logK <sub>oc</sub>	K <sub>oc</sub>
trometamol	0.61	4.06623
lithium dodecyl sulphate	3.1	1234.14

#### Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
trometamol	No	N/A	Yes	No	N/A	N/A	Yes
lithium dodecyl sulphate	No	N/A	No	No	No	N/A	No

**Mobility** : Not available.

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

### 12.5 Results of PBT and vPvB assessment

#### Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
glycerol	No	N/A	N/A	No	N/A	N/A	N/A
trometamol	No	N/A	N/A	No	N/A	N/A	N/A
lithium dodecyl sulphate	No	N/A	N/A	No	N/A	N/A	N/A

#### Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
trometamol	No	N/A	N/A	No	N/A	N/A	N/A
lithium dodecyl sulphate	No	N/A	N/A	No	N/A	N/A	N/A

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PBT or vPvB.

**Regulation (EC) No. 1272/2008 [CLP]**

### 12.6 Endocrine disrupting properties

Not available.

Protein 230 Ladder

## SECTION 12: Ecological information

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. The generation of waste should be avoided or minimised wherever possible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not available.

Protein 230 Ladder

## SECTION 15: Regulatory information

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

#### UK (GB)/REACH

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

###### Ozone depleting substances

Not listed.

###### Prior Informed Consent (PIC)

Not listed.

###### Persistent Organic Pollutants

Not listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

None of the components are listed / The components are not impacted by a restriction

**Labelling** : Not applicable.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

#### EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

##### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

##### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### Inventory list

**United States** : All components are active or exempted.

Protein 230 Ladder

**SECTION 16: Other information**

Indicates information that has changed from previously issued version.

- Abbreviations and acronyms** :
- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
  - ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
  - ATE = Acute Toxicity Estimate
  - GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
  - DMEL = Derived Minimal Effect Level
  - DNEL = Derived No Effect Level
  - EUH statement = GB CLP-specific Hazard statement
  - IATA = International Air Transport Association
  - IMDG = International Maritime Dangerous Goods
  - IMO = International Maritime Organization
  - N/A = Not available
  - PBT = Persistent, Bioaccumulative and Toxic
  - PNEC = Predicted No Effect Concentration
  - RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
  - RRN = REACH Registration Number
  - SGG = Segregation Group
  - vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

Classification	Justification
Not classified.	

**Full text of abbreviated H statements**

H228	Flammable solid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

**Full text of classifications**

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Sol. 1	FLAMMABLE SOLIDS - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

**Date of issue/ Date of revision** : 30/06/2025

**Date of previous issue** : No previous validation

**Version** : 1

**Notice to reader**

**Disclaimer:** The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

# SAFETY DATA SHEET

Protein 230 Sample Buffer

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

### 1.1 Product identifier

**Product name** : Protein 230 Sample Buffer  
**Part no.** : Not available.

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

**Identified uses** : Analytical reagent.  
Research and Development  
0.2 ml

**Uses advised against** : None known.

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

Agilent Technologies LDA UK Ltd.  
5500 Lakeside Cheadle Royal Business Park,  
Cheadle, Cheshire, SK8 3GR  
United Kingdom  
Tel: +44 (0) 345 712 5292  
**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +44 20 3807 3798

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown toxicity** : Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%  
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards.

#### Precautionary statements

**Prevention** : Not applicable.  
**Response** : Not applicable.  
**Storage** : Not applicable.  
**Disposal** : Not applicable.  
**Supplemental label elements** : Safety data sheet available on request.

Protein 230 Sample Buffer

**SECTION 2: Hazards identification**

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.  
**Tactile warning of danger** : Not applicable.

**2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** : None known.

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

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Lithium dodecyl sulphate	EC: 218-058-2 CAS: 2044-56-6	≤5	Flam. Sol. 1, H228 Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412	[1]
Trometamol	EC: 201-064-4 CAS: 77-86-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard  
 Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Protein 230 Sample Buffer**

## SECTION 4: First aid measures

- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
metal oxide/oxides

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Protein 230 Sample Buffer

## SECTION 6: Accidental release measures

**6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

**Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8).  
**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** : Industrial applications, Professional applications.  
**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

#### Biological exposure indices

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Result
lithium dodecyl sulphate	DNEL - General population - Long term - Inhalation 2.26 mg/m <sup>3</sup>
	DNEL - General population - Long term - Oral 2.6 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation 7.6 mg/m <sup>3</sup>
	DNEL - General population - Long term - Dermal 260 mg/kg bw/day
	DNEL - Workers - Long term - Dermal 433.3 mg/kg bw/day
trometamol	DNEL - General population - Long term - Oral 8.3 mg/kg bw/day
	DNEL - General population - Long term - Inhalation 29 mg/m <sup>3</sup>
	DNEL - General population - Long term - Dermal 83.3 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation 117.5 mg/m <sup>3</sup>
	DNEL - Workers - Long term - Dermal 166.7 mg/kg bw/day

### PNECs

Not available.

### 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	: Liquid.
Colour	: Not available.
Odour	: Not available.
Odour threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: Not available.
Flammability	: Not applicable.
Lower and upper explosion limit/flammability limit	: Not available.
Flash point	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
pH	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available.

Solubility	: <b>Media</b>	<b>Result</b>
	water	Soluble

Partition coefficient: n-octanol/water	: Not applicable.
Vapour pressure	: 2.3 kPa (17.5 mm Hg) [Based on solvent.]
Relative density	: Not available.
Vapour density	: Not available.

#### Particle characteristics

Median particle size	: Not applicable.
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### 9.2 Other information

#### 9.2.1 Information with regard to physical hazard classes

Explosive properties	: Not available.
Oxidising properties	: Not available.

#### 9.2.2 Other safety characteristics

Miscible with water	: Yes.
Evaporation rate	: Not available.
Physical/chemical properties comments	: Not available.

**Protein 230 Sample Buffer**

**SECTION 10: Stability and reactivity**

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : May react or be incompatible with oxidising materials.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

Acute toxicity

Product/ingredient name	Result	
lithium dodecyl sulphate	Rat - Oral - LD50	>5000 mg/kg
trometamol	Rat - Male, Female - Dermal - LD50	>5000 mg/kg

**Conclusion/Summary** : Not available.

**[Product]**

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Protein 230 Sample Buffer	16666.7	N/A	N/A	N/A	50.0
lithium dodecyl sulphate	500	N/A	N/A	N/A	1.5

Skin corrosion/irritation

Product/ingredient name	Result	
trometamol	Rabbit - Skin - Moderate irritant	Amount/concentration applied: 25 %
	Rabbit - Skin - Severe irritant	Amount/concentration applied: 500 mg

**Conclusion/Summary** : Not available.

**[Product]**

Serious eye damage/eye irritation

**Conclusion/Summary** : Not available.

**[Product]**

Respiratory corrosion/irritation

**Conclusion/Summary** : Not available.

**[Product]**

Respiratory or skin sensitization

**Skin**

**Conclusion/Summary** : Not available.

**[Product]**

## SECTION 11: Toxicological information

### Respiratory

**Conclusion/Summary** : Not available.  
**[Product]**

### Germ cell mutagenicity

**Conclusion/Summary** : Not available.  
**[Product]**

### Carcinogenicity

**Conclusion/Summary** : Not available.  
**[Product]**

### Reproductive toxicity

**Conclusion/Summary** : Not available.  
**[Product]**

### Specific target organ toxicity (single exposure)

<b>Product/ingredient name</b>	<b>Result</b>
lithium dodecyl sulphate	STOT SE 3, H335 (Respiratory tract irritation)

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

Protein 230 Sample Buffer

**SECTION 11: Toxicological information**

Potential chronic health effects

- Conclusion/Summary [Product]** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Product/ingredient name	Result
trometamol	Acute - EC50 - Fresh water OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test] Daphnia - <i>Daphnia magna</i> >980 mg/l [48 hours]
	Acute - NOEC - Fresh water OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test] Daphnia - <i>Daphnia magna</i> 520 mg/l [48 hours]
<b>Conclusion/Summary [Product]</b>	: Not available.

**12.2 Persistence and degradability**

Product/ingredient name	Result
trometamol	OECD [ Ready Biodegradability - Manometric Respirometry Test] 97.1% [28 days] - Readily Aerobic - 30 mg/l
<b>Conclusion/Summary [Product]</b>	: Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
lithium dodecyl sulphate	-	-	Readily
trometamol	-	-	Readily

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

Soil/water partition coefficient

**Protein 230 Sample Buffer**

**SECTION 12: Ecological information**

Product/ingredient name	logKoc	Koc
lithium dodecyl sulphate	3.1	1234.14
trometamol	0.61	4.06623

**Results of PMT and vPvM assessment**

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
lithium dodecyl sulphate	No	N/A	No	No	No	N/A	No
trometamol	No	N/A	Yes	No	N/A	N/A	Yes

**Mobility** : Not available.

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

**12.5 Results of PBT and vPvB assessment**

**Regulation (EC) No. 1907/2006 [REACH]**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
lithium dodecyl sulphate	No	N/A	N/A	No	N/A	N/A	N/A
trometamol	No	N/A	N/A	No	N/A	N/A	N/A

**Regulation (EC) No. 1272/2008 [CLP]**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
lithium dodecyl sulphate	No	N/A	N/A	No	N/A	N/A	N/A
trometamol	No	N/A	N/A	No	N/A	N/A	N/A

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PBT or vPvB.

**Regulation (EC) No. 1272/2008 [CLP]**

**12.6 Endocrine disrupting properties**

Not available.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

**12.7 Other adverse effects**

No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. The generation of waste should be avoided or minimised wherever possible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Protein 230 Sample Buffer

**SECTION 14: Transport information**

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not available.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

None of the components are listed / The components are not impacted by a restriction

**Labelling** : Not applicable.

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

**Industrial emissions (integrated pollution prevention and control) - Air** : Listed

**Protein 230 Sample Buffer**

**SECTION 15: Regulatory information**

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

**United States** : Not determined.

**SECTION 16: Other information**

🔍 Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = GB CLP-specific Hazard statement
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods
- IMO = International Maritime Organization
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Not classified.	

Full text of abbreviated H statements

**Protein 230 Sample Buffer**

**SECTION 16: Other information**

H228	Flammable solid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

**Full text of classifications**

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Sol. 1	FLAMMABLE SOLIDS - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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**Version** : 1

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