

SAFETY DATA SHEET

Agilent High Sensitivity Protein 250 Reagents

Section 1. Identification

Product identifier	: Agilent High Sensitivity Protein 250 Reagents	
Part no. (chemical kit)	: 5067-1576	
Part no.	: <u>High Sens Protein Reagents</u>	<u>G2938-85000</u>
	Protein 250 Gel Matrix	Not available.
	Protein 250 Destain Solution	Not available.
	Protein 250 Sample Buffer	Not available.

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

Identified uses	: Analytical reagent. Research and Development	
	Protein 250 Gel Matrix	1 x 0.6 ml
	Protein 250 Destain Solution	1 x 0.150 ml
	Protein 250 Sample Buffer	3 x 0.1 ml

Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

Not classified.

GHS label elements

Signal word	: Protein 250 Gel Matrix	No signal word.
	Protein 250 Destain Solution	No signal word.
	Protein 250 Sample Buffer	No signal word.
Hazard statements	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.

Precautionary statements

Prevention	: Protein 250 Gel Matrix	Not applicable.
	Protein 250 Destain Solution	Not applicable.
	Protein 250 Sample Buffer	Not applicable.
Response	: Protein 250 Gel Matrix	Not applicable.
	Protein 250 Destain Solution	Not applicable.
	Protein 250 Sample Buffer	Not applicable.
Storage	: Protein 250 Gel Matrix	Not applicable.
	Protein 250 Destain Solution	Not applicable.
	Protein 250 Sample Buffer	Not applicable.
Disposal	: Protein 250 Gel Matrix	Not applicable.
	Protein 250 Destain Solution	Not applicable.
	Protein 250 Sample Buffer	Not applicable.

Section 2. Hazard identification

Supplemental label elements	:	Protein 250 Gel Matrix	None known.
		Protein 250 Destain Solution	None known.
		Protein 250 Sample Buffer	None known.
		Protein 250 Gel Matrix	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.5%
		Protein 250 Destain Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.5%
Other hazards which do not result in classification	:	Protein 250 Gel Matrix	None known.
		Protein 250 Destain Solution	None known.
		Protein 250 Sample Buffer	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Protein 250 Gel Matrix	Mixture
		Protein 250 Destain Solution	Mixture
		Protein 250 Sample Buffer	Mixture

Ingredient name	Synonyms	% (w/w)	CAS number
Protein 250 Gel Matrix			
Trometamol	Tris	≥1 - ≤5	77-86-1
Sodium dodecyl sulphate	Sodium dodecyl sulphate	≥1 - ≤5	151-21-3
Protein 250 Destain Solution			
Trometamol	Tris	≥1 - ≤5	77-86-1
Sodium dodecyl sulphate	Sodium dodecyl sulphate	≥1 - ≤5	151-21-3

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact	:	Protein 250 Gel Matrix	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.
		Protein 250 Destain Solution	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.
		Protein 250 Sample Buffer	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.

Section 4. First-aid measures

Inhalation	: Protein 250 Gel Matrix	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 250 Destain Solution	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 250 Sample Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Protein 250 Gel Matrix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Protein 250 Destain Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Protein 250 Sample Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Protein 250 Gel Matrix	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.
	Protein 250 Destain Solution	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.
	Protein 250 Sample Buffer	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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.
Inhalation	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.
Skin contact	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.
Ingestion	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Section 4. First-aid measures

Eye contact	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.
Inhalation	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.
Skin contact	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.
Ingestion	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: Protein 250 Gel Matrix	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 250 Destain Solution	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 250 Sample Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Protein 250 Gel Matrix	No specific treatment.
	Protein 250 Destain Solution	No specific treatment.
	Protein 250 Sample Buffer	No specific treatment.
Protection of first-aiders	: Protein 250 Gel Matrix	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Destain Solution	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Sample Buffer	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	: Protein 250 Gel Matrix	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Destain Solution	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Sample Buffer	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Protein 250 Gel Matrix	None known.
	Protein 250 Destain Solution	None known.
	Protein 250 Sample Buffer	None known.
Specific hazards arising from the chemical	: Protein 250 Gel Matrix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Protein 250 Destain Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
	Protein 250 Sample Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products	: Protein 250 Gel Matrix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
	Protein 250 Destain Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
	Protein 250 Sample Buffer	No specific data.
Special protective actions for fire-fighters	: Protein 250 Gel Matrix	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.
	Protein 250 Destain Solution	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.
	Protein 250 Sample Buffer	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	: Protein 250 Gel Matrix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Protein 250 Destain Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Protein 250 Sample Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Protein 250 Gel Matrix	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 spilled material. Put on appropriate personal protective equipment.
	Protein 250 Destain Solution	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 spilled material. Put on appropriate personal protective equipment.
	Protein 250 Sample Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected

Section 6. Accidental release measures

For emergency responders : Protein 250 Gel Matrix

Protein 250 Destain Solution

Protein 250 Sample Buffer

personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

If specialized 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".

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Environmental precautions : Protein 250 Gel Matrix

Protein 250 Destain Solution

Protein 250 Sample Buffer

Avoid dispersal of spilled 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).

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Methods and materials for containment and cleaning up

Methods for cleaning up : Protein 250 Gel Matrix

Protein 250 Destain Solution

Protein 250 Sample Buffer

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.

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.

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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

- : Protein 250 Gel Matrix Put on appropriate personal protective equipment (see Section 8).
- Protein 250 Destain Solution Put on appropriate personal protective equipment (see Section 8).
- Protein 250 Sample Buffer Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

- : Protein 250 Gel Matrix 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.
- Protein 250 Destain Solution 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.
- Protein 250 Sample Buffer 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.

Conditions for safe storage, including any incompatibilities

- : Protein 250 Gel Matrix 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
- Protein 250 Destain Solution 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
- Protein 250 Sample Buffer 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 unlabeled

Section 7. Handling and storage

containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

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

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.

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.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Section 9. Physical and chemical properties and safety characteristics

- Physical state** : Protein 250 Gel Matrix Liquid.
 Protein 250 Destain Solution Liquid.
 Protein 250 Sample Buffer Liquid.
- Color** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.
- Odor** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.
- Odor threshold** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.
- pH** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.
- Melting point/freezing point** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer 0°C (32°F)
- Boiling point, initial boiling point, and boiling range** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer 100°C (212°F)

Flash point :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Protein 250 Gel Matrix						
Sodium dodecyl sulphate	170	338	-	-	-	-
Protein 250 Destain Solution						
Sodium dodecyl sulphate	170	338	-	-	-	-

- Evaporation rate** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.
- Flammability** : Protein 250 Gel Matrix Not applicable.
 Protein 250 Destain Solution Not applicable.
 Protein 250 Sample Buffer Not applicable.
- Lower and upper explosion limit/flammability limit** : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.

Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method

Section 9. Physical and chemical properties and safety characteristics

Protein 250 Gel Matrix							
water	17.5	2.3	-		92.258	12.3	-
Protein 250 Destain Solution							
water	17.5	2.3	-		92.258	12.3	-
Sodium dodecyl sulphate	≤0.0013501	≤0.00018	-		-	-	-
Protein 250 Sample Buffer							
water	17.5	2.3	-		92.258	12.3	-

Relative vapor density : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.

Relative density : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.

Solubility(ies) :

Media	Result
Protein 250 Gel Matrix	
water	Soluble
Protein 250 Destain Solution	
water	Soluble
Protein 250 Sample Buffer	
water	Soluble

Partition coefficient: n-octanol/water : Protein 250 Gel Matrix Not applicable.
 Protein 250 Destain Solution Not applicable.
 Protein 250 Sample Buffer Not applicable.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Protein 250 Gel Matrix			
Sodium dodecyl sulphate	310.5	590.9	VDI 2263
Protein 250 Destain Solution			
Sodium dodecyl sulphate	310.5	590.9	VDI 2263

Decomposition temperature : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.

Viscosity : Protein 250 Gel Matrix Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Sample Buffer Not available.

Particle characteristics

Median particle size : Protein 250 Gel Matrix Not applicable.
 Protein 250 Destain Solution Not applicable.
 Protein 250 Sample Buffer Not applicable.

Section 10. Stability and reactivity

Reactivity	: Protein 250 Gel Matrix	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 Destain Solution	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 Sample Buffer	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Protein 250 Gel Matrix	The product is stable.
	Protein 250 Destain Solution	The product is stable.
	Protein 250 Sample Buffer	The product is stable.
Possibility of hazardous reactions	: Protein 250 Gel Matrix	Under normal conditions of storage and use, hazardous reactions will not occur.
	Protein 250 Destain Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
	Protein 250 Sample Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.
Incompatible materials	: Protein 250 Gel Matrix	May react or be incompatible with oxidizing materials.
	Protein 250 Destain Solution	May react or be incompatible with oxidizing materials.
	Protein 250 Sample Buffer	May react or be incompatible with oxidizing materials.
Hazardous decomposition products	: Protein 250 Gel Matrix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Protein 250 Destain Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Protein 250 Sample Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Protein 250 Gel Matrix Trometamol Sodium dodecyl sulphate	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	1288 mg/kg	-
Protein 250 Destain Solution Trometamol Sodium dodecyl sulphate	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	1288 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Protein 250 Gel Matrix Trometamol Sodium dodecyl sulphate	Skin - Moderate irritant	Rabbit	-	25 %	-
	Skin - Severe irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Guinea pig	-	336 hours 25250 ppm	-
	Skin - Mild irritant	Human	-	48 hours 5 %	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
	Skin - Severe irritant	Guinea pig	-	48 hours 25250 ppm	-
	Skin - Severe irritant	Guinea pig	-	72 hours 25250 ppm	-
	Skin - Severe irritant	Human	-	24 hours 10 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2.5 %	-
Protein 250 Destain Solution Trometamol Sodium dodecyl sulphate	Skin - Moderate irritant	Rabbit	-	25 %	-
	Skin - Severe irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Guinea pig	-	336 hours 25250 ppm	-
	Skin - Mild irritant	Human	-	48 hours 5 %	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
	Skin - Severe irritant	Guinea pig	-	48 hours 25250 ppm	-
	Skin - Severe irritant	Guinea pig	-	72 hours 25250 ppm	-
	Skin - Severe irritant	Human	-	24 hours 10 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2.5 %	-

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Protein 250 Gel Matrix Trometamol	Category 3	-	Respiratory tract irritation
Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
Protein 250 Destain Solution Trometamol	Category 3	-	Respiratory tract irritation
Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure :

- Protein 250 Gel Matrix Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- Protein 250 Destain Solution Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- Protein 250 Sample Buffer Not available.

Potential acute health effects

Eye contact :

- Protein 250 Gel Matrix No known significant effects or critical hazards.
- Protein 250 Destain Solution No known significant effects or critical hazards.
- Protein 250 Sample Buffer No known significant effects or critical hazards.

Inhalation :

- Protein 250 Gel Matrix No known significant effects or critical hazards.
- Protein 250 Destain Solution No known significant effects or critical hazards.
- Protein 250 Sample Buffer No known significant effects or critical hazards.

Skin contact :

- Protein 250 Gel Matrix No known significant effects or critical hazards.
- Protein 250 Destain Solution No known significant effects or critical hazards.
- Protein 250 Sample Buffer No known significant effects or critical hazards.

Ingestion :

- Protein 250 Gel Matrix No known significant effects or critical hazards.
- Protein 250 Destain Solution No known significant effects or critical hazards.
- Protein 250 Sample Buffer No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact :

- Protein 250 Gel Matrix No specific data.
- Protein 250 Destain Solution No specific data.
- Protein 250 Sample Buffer No specific data.

Section 11. Toxicological information

Inhalation	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.
Skin contact	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.
Ingestion	: Protein 250 Gel Matrix	No specific data.
	Protein 250 Destain Solution	No specific data.
	Protein 250 Sample Buffer	No specific data.

Delayed and immediate effects and also 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

General	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.
Carcinogenicity	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.
Mutagenicity	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.
Reproductive toxicity	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destain Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Protein 250 Gel Matrix					
Protein 250 Gel Matrix	128805.2	N/A	N/A	N/A	132.9
Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5
Protein 250 Destain Solution					
Protein 250 Destain Solution	128800.1	N/A	N/A	N/A	150.0
Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5

Other information	: Protein 250 Gel Matrix	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
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Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	
Protein 250 Gel Matrix Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours	
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours	
	Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
		Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours	
	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours	
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours	
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days	
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days	
	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days	
Protein 250 Destain Solution Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours	
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours	
	Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
		Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours	
	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours	
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours	
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days	
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days	
	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days	

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Protein 250 Gel Matrix Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-
	Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l
Protein 250 Destain Solution Trometamol	OECD 301F Ready Biodegradability - Manometric	97.1 % - Readily - 28 days	30 mg/l	-

Section 12. Ecological information

Sodium dodecyl sulphate	Respirometry Test OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	-
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Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Protein 250 Gel Matrix Trometamol Sodium dodecyl sulphate	- -	- -	Readily Readily
Protein 250 Destain Solution Trometamol Sodium dodecyl sulphate	- -	- -	Readily Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Protein 250 Gel Matrix Trometamol Sodium dodecyl sulphate	-2.31 -2.03	- -	Low Low
Protein 250 Destain Solution Trometamol Sodium dodecyl sulphate	-2.31 -2.03	- -	Low Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. 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. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

TDG / IMDG / IATA : Not regulated.

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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

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

Canada : Not determined.

United States : Not determined.

Section 16. Other information

History

Date of issue/Date of revision : 05/20/2024

Date of previous issue : 09/03/2020

Version : 8

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
UN = United Nations

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
Not classified.	

✔ Indicates information that has changed from previously issued version.

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