

SAFETY DATA SHEET



Agilent High Sensitivity Protein 250 Reagents, Part Number 5067-1576

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

1.1 Product identifier

Product name : Agilent High Sensitivity Protein 250 Reagents, Part Number 5067-1576
Part no. (chemical kit) : 5067-1576
Part no. : High Sens Protein G2938-85000
Reagents
Protein 250 Gel Matrix Not available.
Protein 250 Destaining Solution Not available.
Protein 250 Sample Buffer Not available.

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

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

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Protein 250 Gel Matrix Mixture
Protein 250 Destaining Solution Mixture
Protein 250 Sample Buffer Mixture

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

Not classified.

Ingredients of unknown toxicity : Protein 250 Gel Matrix Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 10 - 30%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
Protein 250 Destaining Solution Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%

SECTION 2: Hazards identification

Ingredients of unknown ecotoxicity	: Protein 250 Gel Matrix Protein 250 Destaining Solution	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10% Contains 4.5% of components with unknown hazards to the aquatic environment Contains 4.5% of components with unknown hazards to the aquatic environment
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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	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	No signal word. No signal word. No signal word.
Hazard statements	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<u>Precautionary statements</u>		
Prevention	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not applicable. Not applicable. Not applicable.
Response	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not applicable. Not applicable. Not applicable.
Storage	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not applicable. Not applicable. Not applicable.
Disposal	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not applicable. Not applicable. Not applicable.
Hazardous ingredients	: Protein 250 Gel Matrix Protein 250 Destaining Solution	Not applicable. Not applicable.
Supplemental label elements	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Safety data sheet available on request. Safety data sheet available on request. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not applicable. Not applicable. Not applicable.

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SECTION 2: Hazards identification

Special packaging requirements

Tactile warning of danger	: Protein 250 Gel Matrix	Not applicable.
	Protein 250 Destaining Solution	Not applicable.
	Protein 250 Sample Buffer	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: Protein 250 Gel Matrix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Protein 250 Destaining Solution	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Protein 250 Sample Buffer	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	: Protein 250 Gel Matrix	None known.
	Protein 250 Destaining Solution	None known.
	Protein 250 Sample Buffer	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances	: Protein 250 Gel Matrix	Mixture
	Protein 250 Destaining Solution	Mixture
	Protein 250 Sample Buffer	Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Protein 250 Gel Matrix Trometamol	EC: 201-064-4 CAS: 77-86-1	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
Sodium dodecyl sulphate	EC: 205-788-1 CAS: 151-21-3	≤2.4	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 2, H411	[1]
Protein 250 Destaining Solution Trometamol	EC: 201-064-4 CAS: 77-86-1	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
Sodium dodecyl sulphate	EC: 205-788-1 CAS: 151-21-3	≤2.4	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 2, H411 See Section 16 for the full text of the H statements declared above.	[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 and hence require reporting in this section.

Type

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SECTION 3: Composition/information on ingredients

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of 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 Destaining 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.
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 Destaining 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 Destaining 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 Destaining Solution	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

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SECTION 4: First aid measures

Protection of first-aiders	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.
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4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

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

Over-exposure signs/symptoms

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

4.3 Indication of any immediate medical attention and special treatment needed

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SECTION 4: First aid measures

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 Destaining 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 Destaining Solution	No specific treatment.
	Protein 250 Sample Buffer	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Protein 250 Gel Matrix	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Destaining 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 Destaining Solution	None known.
	Protein 250 Sample Buffer	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Protein 250 Gel Matrix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Protein 250 Destaining 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.
Hazardous combustion 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 Destaining 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.

5.3 Advice for firefighters

Special precautions 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 Destaining 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.

SECTION 5: Firefighting measures

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Protein 250 Destaining Solution	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 European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard 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	: 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 spilt material. Put on appropriate personal protective equipment.
	Protein 250 Destaining 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 spilt 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 personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
For emergency responders	: Protein 250 Gel Matrix	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 250 Destaining Solution	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 250 Sample Buffer	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

: Protein 250 Gel Matrix	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).
Protein 250 Destaining Solution	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).
Protein 250 Sample Buffer	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).

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: Protein 250 Gel Matrix	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.
	Protein 250 Destaining Solution	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.
	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.

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.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: Protein 250 Gel Matrix	Put on appropriate personal protective equipment (see Section 8).
	Protein 250 Destaining 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 Destaining 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.

7.2 Conditions for safe storage, including any incompatibilities

Storage	: 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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SECTION 7: Handling and storage

Protein 250 Destaining 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 unlabelled 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 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	: Protein 250 Gel Matrix	Industrial applications, Professional applications.
	Protein 250 Destaining Solution	Industrial applications, Professional applications.
	Protein 250 Sample Buffer	Industrial applications, Professional applications.
Industrial sector specific solutions	: Protein 250 Gel Matrix	Not applicable.
	Protein 250 Destaining Solution	Not applicable.
	Protein 250 Sample Buffer	Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard 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.
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DNELs/DMELs

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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects	
Protein 250 Gel Matrix Trometamol	DNEL	Long term Oral	8.3 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	29 mg/m ³	General population	Systemic	
	DNEL	Long term Dermal	83.3 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	117.5 mg/m ³	Workers	Systemic	
	DNEL	Long term Dermal	166.7 mg/kg bw/day	Workers	Systemic	
	Sodium dodecyl sulphate	DNEL	Long term Oral	24 mg/kg bw/day	General population	Systemic
		DNEL	Long term Inhalation	85 mg/m ³	General population	Systemic
		DNEL	Long term Inhalation	285 mg/m ³	Workers	Systemic
		DNEL	Long term Dermal	2440 mg/kg bw/day	General population	Systemic
		DNEL	Long term Dermal	4060 mg/kg bw/day	Workers	Systemic
Protein 250 Destaining Solution Trometamol	DNEL	Long term Oral	8.3 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	29 mg/m ³	General population	Systemic	
	DNEL	Long term Dermal	83.3 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	117.5 mg/m ³	Workers	Systemic	
	DNEL	Long term Dermal	166.7 mg/kg bw/day	Workers	Systemic	
	Sodium dodecyl sulphate	DNEL	Long term Oral	24 mg/kg bw/day	General population	Systemic
		DNEL	Long term Inhalation	85 mg/m ³	General population	Systemic
		DNEL	Long term Inhalation	285 mg/m ³	Workers	Systemic
		DNEL	Long term Dermal	2440 mg/kg bw/day	General population	Systemic
		DNEL	Long term Dermal	4060 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs 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.

SECTION 8: Exposure controls/personal protection

- 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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Protein 250 Gel Matrix	Liquid.
	Protein 250 Destaining Solution	Liquid.
	Protein 250 Sample Buffer	Liquid.
Colour	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Odour	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Odour threshold	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
pH	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Melting point/freezing point	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	0°C

SECTION 9: Physical and chemical properties

Initial boiling point and boiling range	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	100°C
Flash point	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Evaporation rate	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Flammability (solid, gas)	: Protein 250 Gel Matrix	Not applicable.
	Protein 250 Destaining Solution	Not applicable.
	Protein 250 Sample Buffer	Not applicable.
Upper/lower flammability or explosive limits	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Vapour pressure	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Vapour density	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Relative density	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Solubility(ies)	: Protein 250 Gel Matrix	Easily soluble in the following materials: cold water and hot water.
	Protein 250 Destaining Solution	Easily soluble in the following materials: cold water and hot water.
	Protein 250 Sample Buffer	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.
Auto-ignition temperature	: Protein 250 Gel Matrix	Not available.
	Protein 250 Destaining Solution	Not available.
	Protein 250 Sample Buffer	Not available.

SECTION 9: Physical and chemical properties

Decomposition temperature	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not available. Not available. Not available. Not available.
Viscosity	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not available. Not available. Not available. Not available.
Explosive properties	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not available. Not available. Not available. Not available.
Oxidising properties	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Not available. Not available. Not available. Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	No specific data. No specific data. No specific data.
10.5 Incompatible materials	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.

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SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	: Protein 250 Gel Matrix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Protein 250 Destaining 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

11.1 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 Destaining Solution Trometamol Sodium dodecyl sulphate	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	1288 mg/kg	-

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 250 Gel Matrix Protein 250 Gel Matrix Trometamol Sodium dodecyl sulphate	128805.2	N/A	N/A	N/A	132.9
	5900	N/A	N/A	N/A	N/A
	1288	N/A	N/A	N/A	1.5
Protein 250 Destaining Solution Protein 250 Destaining Solution Trometamol Sodium dodecyl sulphate	128800.1	N/A	N/A	N/A	150
	5900	N/A	N/A	N/A	N/A
	1288	N/A	N/A	N/A	1.5

Irritation/Corrosion

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	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
Protein 250 Destaining 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	-	24 hours 100 mg	-

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	Eyes - Moderate irritant Skin - Mild irritant	Rabbit Guinea pig	- -	10 mg 24 hours 25 mg	- -
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

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)

Product/ingredient name	Category	Route of exposure	Target organs
Protein 250 Gel Matrix Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
Protein 250 Destaining Solution Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

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

Potential acute health effects

Inhalation : Protein 250 Gel Matrix No known significant effects or critical hazards.
 Protein 250 Destaining 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 Destaining 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 Destaining Solution No known significant effects or critical hazards.
 Protein 250 Sample Buffer No known significant effects or critical hazards.

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Eye contact	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destaining 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

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

General	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destaining 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 Destaining 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 Destaining Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.
Teratogenicity	: Protein 250 Gel Matrix	No known significant effects or critical hazards.
	Protein 250 Destaining Solution	No known significant effects or critical hazards.
	Protein 250 Sample Buffer	No known significant effects or critical hazards.

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Developmental effects	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Other information	: Protein 250 Gel Matrix Protein 250 Destaining Solution Protein 250 Sample Buffer	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking. Not available. Not available.

SECTION 12: Ecological information

12.1 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 - Skeletonema costatum	96 hours
		Acute LC50 900 µg/l Marine water	Crustaceans - Artemia salina - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours	
	Acute LC50 590 µg/l Fresh water	Fish - Cirrhinus mrigala - Larvae	96 hours	
	Chronic NOEC 1.25 mg/l Marine water	Algae - Ulva fasciata - Zoea	96 hours	
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	21 days	
Chronic NOEC 3.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days		
Chronic NOEC >1357 µg/l Fresh water	Fish - Pimephales promelas	42 days		
Protein 250 Destaining 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 - Skeletonema costatum	96 hours
		Acute LC50 900 µg/l Marine water	Crustaceans - Artemia salina - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours	
	Acute LC50 590 µg/l Fresh water	Fish - Cirrhinus mrigala - Larvae	96 hours	
	Chronic NOEC 1.25 mg/l Marine water	Algae - Ulva fasciata - Zoea	96 hours	
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	21 days	
Chronic NOEC 3.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days		
Chronic NOEC >1357 µg/l Fresh water	Fish - Pimephales promelas	42 days		

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

SECTION 12: Ecological information

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

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised 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.

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	-	-	-

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SECTION 14: Transport information

14.5 Environmental hazards	No.	No.	No.

Additional information

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

EU Regulation (EC) No. 1907/2006 (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.

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

Label	:	Protein 250 Gel Matrix	Not applicable.
		Protein 250 Destaining Solution	Not applicable.
		Protein 250 Sample Buffer	Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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

Australia	:	Not determined.
Canada	:	Not determined.

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SECTION 15: Regulatory information

China	: Not determined.
Europe	: Not determined.
Japan	: Japan inventory (ENCS) : Not determined. Japan inventory (ISHL) : Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Protein 250 Gel Matrix H228 H302 H315 H318 H319 H332 H335 H400 H411	Flammable solid. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Protein 250 Destaining Solution H228 H302 H315 H318 H319 H332 H335 H400 H411	Flammable solid. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

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SECTION 16: Other information

Protein 250 Gel Matrix

Acute Tox. 4
Aquatic Acute 1
Aquatic Chronic 2
Eye Dam. 1
Eye Irrit. 2
Flam. Sol. 2
Skin Irrit. 2
STOT SE 3

ACUTE TOXICITY - Category 4
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
FLAMMABLE SOLIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Protein 250 Destaining Solution

Acute Tox. 4
Aquatic Acute 1
Aquatic Chronic 2
Eye Dam. 1
Eye Irrit. 2
Flam. Sol. 2
Skin Irrit. 2
STOT SE 3

ACUTE TOXICITY - Category 4
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
FLAMMABLE SOLIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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