

SAFETY DATA SHEET

Agilent High Sensitivity Protein 250 Labeling Kit, Part Number 5067-1577

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

1.1 Product identifier

Product name	: Agilent High Sensitivity Protein 250 Labeling Kit, Part Number 5067-1577	
CAS number	: Dimethyl sulfoxide	67-68-5
	: Protein 250 Labeling Dye	704891-70-3
	: Protein 250 Labeling Buffer	Not applicable.
	: Ethanolamine solution	Not applicable.
Part no. (chemical kit)	: 5067-1577	
Part no.	: <u>High Sens Protein Labeling Reagents</u>	<u>G2938-85001</u>
	: Dimethyl sulfoxide	Not available.
	: Protein 250 Labeling Buffer	Not available.
	: Ethanolamine solution	Not available.
	: <u>High Sens Protein Labeling Dye</u>	<u>G2938-85002</u>
	: Protein 250 Labeling Dye	Not available.

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

Identified uses	: Analytical chemistry. Research and Development	
	: Dimethyl sulfoxide	1 x 0.1 ml
	: Protein 250 Labeling Dye	1 x 0.018 mg
	: Protein 250 Labeling Buffer	1 x 1 ml
	: Ethanolamine solution	1 x 0.1 ml
Uses advised against	: None known.	

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
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	: Dimethyl sulfoxide	Mono-constituent substance
	: Protein 250 Labeling Dye	Mono-constituent substance
	: Protein 250 Labeling Buffer	Mixture
	: Ethanolamine solution	Mixture

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

SECTION 2: Hazards identification

Protein 250 Labeling

Dye		
H318	SERIOUS EYE DAMAGE/EYE IRRITATION	Category 1
Dimethyl sulfoxide	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.	
Protein 250 Labeling Dye	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.	
Protein 250 Labeling Buffer	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.	
Ethanolamine solution	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.	

Ingredients of unknown toxicity : Protein 250 Labeling Buffer 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

Hazard pictograms : Protein 250 Labeling Dye



Signal word : Dimethyl sulfoxide No signal word.
 Protein 250 Labeling Dye Danger
 Protein 250 Labeling Buffer No signal word.
 Ethanolamine solution No signal word.

Hazard statements : Dimethyl sulfoxide No known significant effects or critical hazards.
 Protein 250 Labeling Dye H318 - Causes serious eye damage.
 Protein 250 Labeling Buffer No known significant effects or critical hazards.
 Ethanolamine solution No known significant effects or critical hazards.

Precautionary statements

Prevention : Dimethyl sulfoxide Not applicable.
 Protein 250 Labeling Dye P280 - Wear eye or face protection.
 Protein 250 Labeling Buffer Not applicable.
 Ethanolamine solution Not applicable.

Response : Dimethyl sulfoxide Not applicable.
 Protein 250 Labeling Dye P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
 Protein 250 Labeling Buffer Not applicable.
 Ethanolamine solution Not applicable.

Storage : Dimethyl sulfoxide Not applicable.
 Protein 250 Labeling Dye Not applicable.
 Protein 250 Labeling Buffer Not applicable.
 Ethanolamine solution Not applicable.

Disposal : Dimethyl sulfoxide Not applicable.
 Protein 250 Labeling Dye Not applicable.
 Protein 250 Labeling Buffer Not applicable.
 Ethanolamine solution Not applicable.

SECTION 2: Hazards identification

Supplemental label elements : Dimethyl sulfoxide Not applicable.
 Protein 250 Labeling Dye Not applicable.
 Protein 250 Labeling Safety data sheet available on request.
 Buffer
 Ethanolamine solution Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Dimethyl sulfoxide Not applicable.
 Protein 250 Labeling Dye Not applicable.
 Protein 250 Labeling Not applicable.
 Buffer
 Ethanolamine solution Not applicable.

Special packaging requirements

Tactile warning of danger : Dimethyl sulfoxide Not applicable.
 Protein 250 Labeling Dye Not applicable.
 Protein 250 Labeling Not applicable.
 Buffer
 Ethanolamine solution Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

	PBT	P	B	T	vPvB	vP	vB
Dimethyl sulfoxide	No	N/A	No	No	No	N/A	No
Protein 250 Labeling Dye	No	N/A	N/A	No	N/A	N/A	N/A

Protein 250 Labeling Buffer This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Ethanolamine solution 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 : Dimethyl sulfoxide None known.
 Protein 250 Labeling Dye None known.
 Protein 250 Labeling None known.
 Buffer
 Ethanolamine solution None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : Dimethyl sulfoxide Mono-constituent substance
 Protein 250 Labeling Dye Mono-constituent substance
 Protein 250 Labeling Buffer Mixture
 Ethanolamine solution Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Dimethyl sulfoxide dimethyl sulfoxide	EC: 200-664-3 CAS: 67-68-5	100	Not classified.	-	[1]
Protein 250 Labeling Dye 3H-Indolium, 2-[3-[7-(diethylamino)-2-(1,1-dimethylethyl)-4H-1-benzopyran-4-ylidene]-1-propen-1-yl]-3-[4-(2,5-dioxo-1-pyrrolidinyl)]	CAS: 704891-70-3	100	Eye Dam. 1, H318	-	[1]

SECTION 3: Composition/information on ingredients

oxy]-4-oxobutyl]-3-methyl-5-sulfo-1-(3- sulfopropyl)-, inner salt, sodium salt (1:1)					
Protein 250 Labeling Buffer					
trometamol	EC: 201-064-4 CAS: 77-86-1	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 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, are classified and contribute to the classification of the substance and hence require reporting in this section.

- Type
- Dimethyl sulfoxide [1] Constituent
 - Protein 250 Labeling Dye [1] Constituent
 - Protein 250 Labeling Buffer [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	: Dimethyl sulfoxide	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 Labeling Dye	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
	Protein 250 Labeling 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.
	Ethanolamine 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.
Inhalation	: Dimethyl sulfoxide	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Protein 250 Labeling Dye	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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 Labeling Buffer	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

SECTION 4: First aid measures

		person may need to be kept under medical surveillance for 48 hours.
	Ethanolamine solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Dimethyl sulfoxide	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Protein 250 Labeling Dye	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Protein 250 Labeling Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Ethanolamine solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Dimethyl sulfoxide	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 Labeling Dye	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Protein 250 Labeling 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.
	Ethanolamine 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.
Protection of first-aiders	: Dimethyl sulfoxide	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Labeling Dye	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Protein 250 Labeling Buffer	No action shall be taken involving any personal risk or without suitable training.
	Ethanolamine solution	No action shall be taken involving any personal risk or without suitable training.

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	:	Dimethyl sulfoxide	No known significant effects or critical hazards.
		Protein 250 Labeling Dye	Causes serious eye damage.
		Protein 250 Labeling	No known significant effects or critical hazards.
		Buffer	
		Ethanolamine solution	No known significant effects or critical hazards.
Inhalation	:	Dimethyl sulfoxide	No known significant effects or critical hazards.
		Protein 250 Labeling Dye	No known significant effects or critical hazards.
		Protein 250 Labeling	No known significant effects or critical hazards.
		Buffer	
		Ethanolamine solution	No known significant effects or critical hazards.
Skin contact	:	Dimethyl sulfoxide	No known significant effects or critical hazards.
		Protein 250 Labeling Dye	No known significant effects or critical hazards.
		Protein 250 Labeling	No known significant effects or critical hazards.
		Buffer	
		Ethanolamine solution	No known significant effects or critical hazards.
Ingestion	:	Dimethyl sulfoxide	No known significant effects or critical hazards.
		Protein 250 Labeling Dye	No known significant effects or critical hazards.
		Protein 250 Labeling	No known significant effects or critical hazards.
		Buffer	
		Ethanolamine solution	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Dimethyl sulfoxide	No specific data.
		Protein 250 Labeling Dye	Adverse symptoms may include the following: pain watering redness
		Protein 250 Labeling	No specific data.
		Buffer	
		Ethanolamine solution	No specific data.
Inhalation	:	Dimethyl sulfoxide	No specific data.
		Protein 250 Labeling Dye	No specific data.
		Protein 250 Labeling	No specific data.
		Buffer	
		Ethanolamine solution	No specific data.
Skin contact	:	Dimethyl sulfoxide	No specific data.
		Protein 250 Labeling Dye	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		Protein 250 Labeling	No specific data.
		Buffer	
		Ethanolamine solution	No specific data.
Ingestion	:	Dimethyl sulfoxide	No specific data.
		Protein 250 Labeling Dye	Adverse symptoms may include the following: stomach pains
		Protein 250 Labeling	No specific data.
		Buffer	
		Ethanolamine solution	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 4: First aid measures

Notes to physician	: Dimethyl sulfoxide	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Protein 250 Labeling Dye	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 Labeling Buffer	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.
	Ethanolamine solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Dimethyl sulfoxide	No specific treatment.
	Protein 250 Labeling Dye	No specific treatment.
	Protein 250 Labeling Buffer	No specific treatment.
	Ethanolamine solution	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Dimethyl sulfoxide	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Labeling Dye	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Labeling Buffer	Use an extinguishing agent suitable for the surrounding fire.
	Ethanolamine solution	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Dimethyl sulfoxide	None known.
	Protein 250 Labeling Dye	None known.
	Protein 250 Labeling Buffer	None known.
	Ethanolamine solution	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Dimethyl sulfoxide	In a fire or if heated, a pressure increase will occur and the container may burst.
	Protein 250 Labeling Dye	No specific fire or explosion hazard.
	Protein 250 Labeling Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	Ethanolamine solution	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: Dimethyl sulfoxide	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	Protein 250 Labeling Dye	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
	Protein 250 Labeling Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	Ethanolamine solution	No specific data.

5.3 Advice for firefighters

SECTION 5: Firefighting measures

Special precautions for fire-fighters	: Dimethyl sulfoxide	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 Labeling Dye	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 Labeling 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.
	Ethanolamine 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.
Special protective equipment for fire-fighters	: Dimethyl sulfoxide	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 Labeling Dye	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 Labeling 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.
	Ethanolamine 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Dimethyl sulfoxide	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 Labeling Dye	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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Protein 250 Labeling 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.
	Ethanolamine 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.

SECTION 6: Accidental release measures

For emergency responders	: Dimethyl sulfoxide	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 Labeling Dye	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 Labeling 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".
	Ethanolamine 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".

6.2 Environmental precautions	: Dimethyl sulfoxide	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 Labeling Dye	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 Labeling 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).
	Ethanolamine 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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: Dimethyl sulfoxide	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 Labeling Dye	Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	Protein 250 Labeling 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.
	Ethanolamine 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.

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	: Dimethyl sulfoxide	Put on appropriate personal protective equipment (see Section 8).
	Protein 250 Labeling Dye	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Protein 250 Labeling Buffer	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	Ethanolamine solution	Put on appropriate personal protective equipment (see Section 8).
	: Dimethyl sulfoxide	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 Labeling Dye	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 Labeling 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.
	Ethanolamine 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.

7.2 Conditions for safe storage, including any incompatibilities

Storage	: Dimethyl sulfoxide	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 Labeling Dye	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. Store locked up. 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.

SECTION 7: Handling and storage

Protein 250 Labeling 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.
Ethanolamine 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.

7.3 Specific end use(s)

Recommendations	: Dimethyl sulfoxide Protein 250 Labeling Dye Protein 250 Labeling Buffer Ethanolamine solution	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Dimethyl sulfoxide Protein 250 Labeling Dye Protein 250 Labeling Buffer Ethanolamine solution	Not available. Not available. Not available. 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: 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.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
Dimethyl sulfoxide Dimethyl sulfoxide	DNEL	Long term Inhalation	47 mg/m ³	General population	Local
	DNEL	Long term Oral	60 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	100 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	120 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	200 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	265 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	484 mg/m ³	Workers	Systemic
Protein 250 Labeling Buffer 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

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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.

SECTION 8: Exposure controls/personal protection

- 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	: Dimethyl sulfoxide	Liquid. [Clear.]
	Protein 250 Labeling Dye	Solid. [lyophilised]
	Protein 250 Labeling Buffer	Liquid.
	Ethanolamine solution	Liquid.
Colour	: Dimethyl sulfoxide	Colourless.
	Protein 250 Labeling Dye	Not available.
	Protein 250 Labeling Buffer	Not available.
	Ethanolamine solution	Not available.
Odour	: Dimethyl sulfoxide	Odourless. [Slight]
	Protein 250 Labeling Dye	Odourless.
	Protein 250 Labeling Buffer	Not available.
	Ethanolamine solution	Not available.
Odour threshold	: Dimethyl sulfoxide	Not available.
	Protein 250 Labeling Dye	Not available.
	Protein 250 Labeling Buffer	Not available.
	Ethanolamine solution	Not available.
Melting point/freezing point	: Dimethyl sulfoxide	18.5°C
	Protein 250 Labeling Dye	Not available.
	Protein 250 Labeling Buffer	0°C
	Ethanolamine solution	0°C
Initial boiling point and boiling range	: Dimethyl sulfoxide	189°C
	Protein 250 Labeling Dye	Not available.
	Protein 250 Labeling Buffer	100°C
	Ethanolamine solution	100°C
Flammability	: Dimethyl sulfoxide	Not applicable.
	Protein 250 Labeling Dye	May be combustible at high temperature.
	Protein 250 Labeling Buffer	Not applicable.
	Ethanolamine solution	Not applicable.
Upper/lower flammability or explosive limits	: Dimethyl sulfoxide	Lower: 2.6% Upper: 28.5%
	Protein 250 Labeling Dye	Not applicable.
	Protein 250 Labeling Buffer	Not available.
	Ethanolamine solution	Not available.

SECTION 9: Physical and chemical properties

- Flash point** : Dimethyl sulfoxide Closed cup: 87°C [ASTM D 93]
 Open cup: 87°C
 Protein 250 Labeling Dye Not applicable.
 Protein 250 Labeling Not available.
 Buffer
 Ethanolamine solution Not available.
- Auto-ignition temperature** : Dimethyl sulfoxide 300 to 302°C
 Protein 250 Labeling Dye Not applicable.
- Decomposition temperature** : Dimethyl sulfoxide 140 to 189°C
 Protein 250 Labeling Dye Not available.
 Protein 250 Labeling Not available.
 Buffer
 Ethanolamine solution Not available.
- pH** : Dimethyl sulfoxide Not available.
 Protein 250 Labeling Dye Not available.
 Protein 250 Labeling 8.6 to 8.9
 Buffer
 Ethanolamine solution Not available.
- Viscosity** : Dimethyl sulfoxide Dynamic: 2.14 mPa·s
 Protein 250 Labeling Dye Not applicable.
 Protein 250 Labeling Not available.
 Buffer
 Ethanolamine solution Not available.

Solubility(ies)	Media	Result
	Dimethyl sulfoxide	
	water	Soluble
	Protein 250 Labeling Dye	
	water	Soluble
	methanol	Soluble
	Protein 250 Labeling Buffer	
	water	Soluble
	Ethanolamine solution	
	water	Soluble

- Partition coefficient: n-octanol/water** : Dimethyl sulfoxide -1.35
 Protein 250 Labeling Dye Not available.
 Protein 250 Labeling Not applicable.
 Buffer
 Ethanolamine solution Not applicable.

- Vapour pressure** : Dimethyl sulfoxide 0.056 kPa (0.42 mm Hg) [EU A.4]

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Protein 250 Labeling Buffer						
water	17.5	2.3	-	92.258	12.3	-
trometamol	<0.00075006	<0.0001	-	-	-	-
Ethanolamine solution						
water	17.5	2.3	-	92.258	12.3	-

- Evaporation rate** : Dimethyl sulfoxide 0.026 (butyl acetate = 1)
 Protein 250 Labeling Dye Not available.
 Protein 250 Labeling Not available.
 Buffer
 Ethanolamine solution Not available.

SECTION 9: Physical and chemical properties

Relative density	:	Dimethyl sulfoxide	1.1
		Protein 250 Labeling Dye	Not available.
		Protein 250 Labeling Buffer	Not available.
		Ethanolamine solution	Not available.
Vapour density	:	Dimethyl sulfoxide	2.7 [Air = 1]
		Protein 250 Labeling Dye	Not applicable.
		Protein 250 Labeling Buffer	Not available.
		Ethanolamine solution	Not available.
Explosive properties	:	Dimethyl sulfoxide	Not available.
		Protein 250 Labeling Dye	Not available.
		Protein 250 Labeling Buffer	Not available.
		Ethanolamine solution	Not available.
Oxidising properties	:	Dimethyl sulfoxide	Not available.
		Protein 250 Labeling Dye	Not available.
		Protein 250 Labeling Buffer	Not available.
		Ethanolamine solution	Not available.
Particle characteristics			
Median particle size	:	Dimethyl sulfoxide	Not applicable.
		Protein 250 Labeling Dye	Not available.
		Protein 250 Labeling Buffer	Not applicable.
		Ethanolamine solution	Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Dimethyl sulfoxide	No specific test data related to reactivity available for this product or its ingredients.
		Protein 250 Labeling Dye	No specific test data related to reactivity available for this product or its ingredients.
		Protein 250 Labeling Buffer	No specific test data related to reactivity available for this product or its ingredients.
		Ethanolamine solution	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	Dimethyl sulfoxide	The product is stable.
		Protein 250 Labeling Dye	The product is stable.
		Protein 250 Labeling Buffer	The product is stable.
		Ethanolamine solution	The product is stable.
10.3 Possibility of hazardous reactions	:	Dimethyl sulfoxide	Under normal conditions of storage and use, hazardous reactions will not occur.
		Protein 250 Labeling Dye	Under normal conditions of storage and use, hazardous reactions will not occur.
		Protein 250 Labeling Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
		Ethanolamine solution	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	Dimethyl sulfoxide	No specific data.
		Protein 250 Labeling Dye	No specific data.
		Protein 250 Labeling Buffer	No specific data.
		Ethanolamine solution	No specific data.

SECTION 10: Stability and reactivity

10.5 Incompatible materials : Dimethyl sulfoxide May react or be incompatible with oxidising materials.
 Protein 250 Labeling Dye May react or be incompatible with oxidising materials.
 Protein 250 Labeling Buffer May react or be incompatible with oxidising materials.
 Ethanolamine solution May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products : Dimethyl sulfoxide Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 Protein 250 Labeling Dye Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 Protein 250 Labeling Buffer Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 Ethanolamine solution 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
Dimethyl sulfoxide Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-
Protein 250 Labeling Buffer Trometamol	LD50 Dermal	Rat	>5000 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)
Dimethyl sulfoxide Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Dimethyl sulfoxide Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Protein 250 Labeling Buffer Trometamol	Skin - Moderate irritant	Rabbit	-	25 %	-
	Skin - Severe irritant	Rabbit	-	500 mg	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

SECTION 11: Toxicological information

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	: Dimethyl sulfoxide	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Protein 250 Labeling Dye	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Protein 250 Labeling Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Ethanolamine solution	Not available.

Potential acute health effects

Inhalation	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	No known significant effects or critical hazards.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.
Ingestion	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	No known significant effects or critical hazards.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.
Skin contact	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	No known significant effects or critical hazards.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.
Eye contact	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	Causes serious eye damage.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Dimethyl sulfoxide	No specific data.
	Protein 250 Labeling Dye	No specific data.
	Protein 250 Labeling Buffer	No specific data.
	Ethanolamine solution	No specific data.
Ingestion	: Dimethyl sulfoxide	No specific data.
	Protein 250 Labeling Dye	Adverse symptoms may include the following: stomach pains
	Protein 250 Labeling Buffer	No specific data.
	Ethanolamine solution	No specific data.
Skin contact	: Dimethyl sulfoxide	No specific data.
	Protein 250 Labeling Dye	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	Protein 250 Labeling Buffer	No specific data.
	Ethanolamine solution	No specific data.

SECTION 11: Toxicological information

Eye contact	: Dimethyl sulfoxide	No specific data.
	Protein 250 Labeling Dye	Adverse symptoms may include the following: pain watering redness
	Protein 250 Labeling Buffer	No specific data.
	Ethanolamine solution	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 : Not available.

General	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	No known significant effects or critical hazards.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.
Carcinogenicity	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	No known significant effects or critical hazards.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.
Mutagenicity	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	No known significant effects or critical hazards.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.
Reproductive toxicity	: Dimethyl sulfoxide	No known significant effects or critical hazards.
	Protein 250 Labeling Dye	No known significant effects or critical hazards.
	Protein 250 Labeling Buffer	No known significant effects or critical hazards.
	Ethanolamine solution	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

SECTION 12: Ecological information

Product/ingredient name	Result	Species	Exposure
Dimethyl sulfoxide Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water Acute LC50 34000000 µg/l Fresh water Chronic NOEC 100 µl/L Marine water Chronic NOEC 100 µl/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate Fish - <i>Pimephales promelas</i> Algae - <i>Ulva lactuca</i> Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours 72 hours 21 days
Protein 250 Labeling Buffer Trometamol	Acute EC50 >980 mg/l Fresh water Acute NOEC 520 mg/l Fresh water	Daphnia Daphnia	48 hours 48 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Dimethyl sulfoxide Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-
Protein 250 Labeling Buffer Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Dimethyl sulfoxide Dimethyl sulfoxide	-	-	Not readily
Protein 250 Labeling Buffer Trometamol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Dimethyl sulfoxide Dimethyl sulfoxide	-1.35	3.16	Low
Protein 250 Labeling Buffer Trometamol	-2.31	-	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

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Dimethyl sulfoxide Dimethyl sulfoxide	No	N/A	No	No	No	N/A	No
Protein 250 Labeling Dye 3H-Indolium, 2-[3-[7-(diethylamino)-2-(1,1-dimethylethyl)-4H-1-benzopyran-4-ylidene]-1-propen-1-yl]-3-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]-3-methyl-5-sulfo-1-(3-sulfopropyl)-, inner salt, sodium salt (1:1)	No	N/A	N/A	No	N/A	N/A	N/A

12.6 Endocrine disrupting properties

Not available.

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 : 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 : The classification of the product may meet the criteria for a hazardous waste.

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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 or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-

SECTION 14: Transport information

14.5 Environmental hazards	No.	No.	No.
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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

No listed substance

Label	:	Dimethyl sulfoxide	Not applicable.
		Protein 250 Labeling Dye	Not applicable.
		Protein 250 Labeling Buffer	Not applicable.
		Ethanolamine solution	Not applicable.

Other EU regulations

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

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

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)

SECTION 15: Regulatory information

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Eurasian Economic Union	: Russian Federation inventory : Not determined.
Japan	: Japan inventory (CSCL) : 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
Protein 250 Labeling Dye Eye Dam. 1, H318	Expert judgment

[Full text of abbreviated H statements](#)

Protein 250 Labeling Dye H318	Causes serious eye damage.
Protein 250 Labeling Buffer H315 H319	Causes skin irritation. Causes serious eye irritation.

[Full text of classifications \[CLP/GHS\]](#)

SECTION 16: Other information

Protein 250 Labeling Dye Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Protein 250 Labeling Buffer Eye Irrit. 2 Skin Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2

Date of issue/ Date of revision : 27/09/2023

Date of previous issue : No previous validation

Version : 1

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