

SAFETY DATA SHEET



Agilent High Sensitivity Protein 250 Kit, Part Number 5067-1575

Section 1. Identification

1.1 Product identifier

Product name : Agilent High Sensitivity Protein 250 Kit, Part Number 5067-1575

Part no. (chemical kit) : 5067-1575

Part no. :

<input checked="" type="checkbox"/> High Sensitivity Protein Labeling Dye	G2938-85002
High Sensitivity Protein 250 Labeling Dye	Not available.
<input checked="" type="checkbox"/> High Sensitivity Protein Labeling Reagents	G2938-85001
Protein 250 DMSO	Not available.
10 x Protein 250 Labeling Buffer	Not available.
Protein 250 Ethanolamine	Not available.
<input checked="" type="checkbox"/> High Sensitivity Protein Reagents	G2938-85000
Protein 250 Destain Solution	Not available.
Protein 250 Gel Matrix	Not available.
Protein 250 Sample Buffer	Not available.
<input checked="" type="checkbox"/> High Sensitivity Protein Ladder	G2938-85003
Protein 250 Ladder	Not available.

Validation date : 11/28/2022

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

Identified uses :

- Analytical chemistry. Research and Development

<input checked="" type="checkbox"/> High Sensitivity Protein 250 Labeling Dye	1 x 0.018 mg
Protein 250 DMSO	1 x 0.1 ml
10 x Protein 250 Labeling Buffer	1 x 1 ml
Protein 250 Ethanolamine	1 x 0.1 ml
Protein 250 Destain Solution	1 x 0.150 ml
Protein 250 Gel Matrix	1 x 0.6 ml
Protein 250 Sample Buffer	3 x 0.1 ml
Protein 250 Ladder	1 x 0.018 ml

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status :

<input checked="" type="checkbox"/> High Sensitivity Protein 250 Labeling Dye	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Protein 250 DMSO	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
10 x Protein 250 Labeling Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Protein 250 Ethanolamine	While this material is not considered hazardous by the

Section 2. Hazards identification

	OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Protein 250 Destain Solution	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Protein 250 Gel Matrix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Protein 250 Sample Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Protein 250 Ladder	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

High Sensitivity Protein 250

Labeling Dye

H318 SERIOUS EYE DAMAGE - Category 1

Protein 250 DMSO

H227 FLAMMABLE LIQUIDS - Category 4
H320 EYE IRRITATION - Category 2B

Protein 250 Ladder

H320 EYE IRRITATION - Category 2B

Protein 250 Destain Solution	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 4.5%
Protein 250 Gel Matrix	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 4.5%

2.2 GHS label elements

Hazard pictograms

: High Sensitivity Protein 250 Labeling Dye



Signal word

: High Sensitivity Protein 250 Labeling Dye	Danger
Protein 250 DMSO	Warning
10 x Protein 250 Labeling Buffer	No signal word.
Protein 250 Ethanolamine	No signal word.
Protein 250 Destain Solution	No signal word.
Protein 250 Gel Matrix	No signal word.
Protein 250 Sample Buffer	No signal word.
Protein 250 Ladder	Warning

Section 2. Hazards identification

Hazard statements	<p>High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO</p> <p>10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder</p>	<p>H318 - Causes serious eye damage.</p> <p>H227 - Combustible liquid. H320 - Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H320 - Causes eye irritation.</p>
Precautionary statements		
Prevention	<p>High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO</p> <p>10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder</p>	<p>P280 - Wear eye or face protection.</p> <p>P210 - Keep away from flames and hot surfaces. No smoking. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.</p>
Response	<p>High Sensitivity Protein 250 Labeling Dye</p> <p>Protein 250 DMSO</p> <p>10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder</p>	<p>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.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical advice or attention. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical advice or attention.</p>
Storage	<p>High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO</p> <p>10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder</p>	<p>Not applicable.</p> <p>P403 + P235 - Store in a well-ventilated place. Keep cool. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.</p>
Disposal	:	

Section 2. Hazards identification

	High Sensitivity Protein 250 Labeling Dye	Not applicable.
	Protein 250 DMSO	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	10 x Protein 250 Labeling Buffer	Not applicable.
	Protein 250 Ethanolamine	Not applicable.
	Protein 250 Destain Solution	Not applicable.
	Protein 250 Gel Matrix	Not applicable.
	Protein 250 Sample Buffer	Not applicable.
	Protein 250 Ladder	Not applicable.
Supplemental label elements	: High Sensitivity Protein 250 Labeling Dye	None known.
	Protein 250 DMSO	None known.
	10 x Protein 250 Labeling Buffer	None known.
	Protein 250 Ethanolamine	None known.
	Protein 250 Destain Solution	None known.
	Protein 250 Gel Matrix	None known.
	Protein 250 Sample Buffer	None known.
	Protein 250 Ladder	None known.

2.3 Other hazards

Hazards not otherwise classified	: High Sensitivity Protein 250 Labeling Dye	None known.
	Protein 250 DMSO	None known.
	10 x Protein 250 Labeling Buffer	None known.
	Protein 250 Ethanolamine	None known.
	Protein 250 Destain Solution	None known.
	Protein 250 Gel Matrix	None known.
	Protein 250 Sample Buffer	None known.
	Protein 250 Ladder	None known.

Section 3. Composition/information on ingredients

Substance/mixture	: High Sensitivity Protein 250 Labeling Dye	Substance
	Protein 250 DMSO	Substance
	10 x Protein 250 Labeling Buffer	Mixture
	Protein 250 Ethanolamine	Mixture
	Protein 250 Destain Solution	Mixture
	Protein 250 Gel Matrix	Mixture
	Protein 250 Sample Buffer	Mixture
	Protein 250 Ladder	Mixture

Ingredient name	%	CAS number
High Sensitivity 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)	100	704891-70-3
Protein 250 DMSO		
Dimethyl sulfoxide	100	67-68-5
10 x Protein 250 Labeling Buffer		
Trometamol	≤5	77-86-1

Section 3. Composition/information on ingredients

Protein 250 Destain Solution		
Trometamol	≤5	77-86-1
Sodium dodecyl sulphate	≤2.4	151-21-3
Protein 250 Gel Matrix		
Trometamol	≤5	77-86-1
Sodium dodecyl sulphate	≤2.4	151-21-3
Protein 250 Ladder		
Glycerol	≥10 - ≤25	56-81-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: High Sensitivity 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 DMSO	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. If irritation persists, get medical attention.
	10 x 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.
	Protein 250 Ethanolamine	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Protein 250 Destain Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Protein 250 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 Sample Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Section 4. First aid measures

Inhalation	: High Sensitivity Protein 250 Labeling Dye	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. If irritation persists, get medical attention.
	Protein 250 DMSO	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.
	10 x Protein 250 Labeling Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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 Ethanolamine	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Protein 250 Destain Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Protein 250 Destain Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Protein 250 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 Sample Buffer	Remove victim to fresh air and keep at rest in a

Section 4. First aid measures

position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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.

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.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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

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

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

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

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

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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,

Protein 250 Ladder

Skin contact

: High Sensitivity Protein 250 Labeling Dye

Protein 250 DMSO

10 x Protein 250 Labeling Buffer

Protein 250 Ethanolamine

Protein 250 Destain Solution

Protein 250 Gel Matrix

Protein 250 Sample Buffer

Protein 250 Ladder

Ingestion

: High Sensitivity Protein 250 Labeling Dye

Section 4. First aid measures

Protein 250 DMSO

place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

Get medical attention if adverse health effects persist or are severe. 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.

10 x 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.

Protein 250 Ethanolamine

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protein 250 Destain Solution

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protein 250 Gel Matrix

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protein 250 Sample Buffer

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protein 250 Ladder

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. Get medical attention if adverse health effects persist or are severe. 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

Section 4. First aid measures

tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	Causes serious eye damage. Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation.
Inhalation	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. 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	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	Adverse symptoms may include the following: pain watering redness Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering
--------------------	--	--

Section 4. First aid measures

Inhalation	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	redness
		No specific data.
		No specific data.
		No specific data.
		No specific data.
		No specific data.
		No specific data.
Skin contact	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		No specific data.
		No specific data.
		No specific data.
		No specific data.
		No specific data.
		No specific data.
Ingestion	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	Adverse symptoms may include the following: stomach pains
		No specific data.
		No specific data.
		No specific data.
		No specific data.
		No specific data.
		No specific data.

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

Notes to physician	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample 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.
		Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		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.
		Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		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.
		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.
		Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

	Protein 250 Ladder	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: High Sensitivity Protein 250 Labeling Dye	No specific treatment.
	Protein 250 DMSO	No specific treatment.
	10 x Protein 250 Labeling Buffer	No specific treatment.
	Protein 250 Ethanolamine	No specific treatment.
	Protein 250 Destain Solution	No specific treatment.
	Protein 250 Gel Matrix	No specific treatment.
	Protein 250 Sample Buffer	No specific treatment.
	Protein 250 Ladder	No specific treatment.
Protection of first-aiders	: High Sensitivity 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 DMSO	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	10 x Protein 250 Labeling Buffer	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Ethanolamine	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Destain Solution	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Gel Matrix	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Sample Buffer	No action shall be taken involving any personal risk or without suitable training.
	Protein 250 Ladder	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: High Sensitivity Protein 250 Labeling Dye	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 DMSO	Use dry chemical, CO ₂ , water spray (fog) or foam.
	10 x Protein 250 Labeling Buffer	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Ethanolamine	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Destain Solution	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Gel Matrix	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Sample Buffer	Use an extinguishing agent suitable for the surrounding fire.
	Protein 250 Ladder	Use an extinguishing agent suitable for the surrounding fire.

Section 5. Fire-fighting measures

Unsuitable extinguishing media	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	None known. Do not use water jet. None known. None known. None known. None known. None known. None known.
 5.2 Special hazards arising from the substance or mixture		
Specific hazards arising from the chemical	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No specific fire or explosion hazard. Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides Decomposition products may include the following

Section 5. Fire-fighting measures

materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 sulfur oxides
 metal oxide/oxides
 No specific data.
 Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide

Protein 250 Sample Buffer
 Protein 250 Ladder

5.3 Advice for firefighters

Special protective actions for fire-fighters

: High Sensitivity 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 DMSO

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

10 x 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.

Protein 250 Ethanolamine

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Protein 250 Destain Solution

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Protein 250 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 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.

Protein 250 Ladder

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

: High Sensitivity 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.

Protein 250 DMSO

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

10 x 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.

Section 5. Fire-fighting measures

Protein 250 Ethanolamine	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Protein 250 Destain Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Protein 250 Gel Matrix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Protein 250 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.
Protein 250 Ladder	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

:  High Sensitivity 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 spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Protein 250 DMSO

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

10 x 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 spilled material. Put on appropriate personal protective equipment.

Protein 250 Ethanolamine

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

Protein 250 Destain Solution

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

Section 6. Accidental release measures

Protein 250 Gel Matrix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
Protein 250 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 spilled material. Put on appropriate personal protective equipment.
Protein 250 Ladder	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : High Sensitivity Protein 250 Labeling Dye	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Protein 250 DMSO	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
10 x Protein 250 Labeling Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Protein 250 Ethanolamine	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Protein 250 Destain Solution	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Protein 250 Gel Matrix	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Protein 250 Sample Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Protein 250 Ladder	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

6.2 Environmental precautions	: High Sensitivity Protein 250 Labeling Dye	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Protein 250 DMSO	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	10 x Protein 250 Labeling Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Protein 250 Ethanolamine	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Protein 250 Destain Solution	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Protein 250 Gel Matrix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Protein 250 Sample Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Protein 250 Ladder	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	: High Sensitivity 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 DMSO	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.
	10 x 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.

Section 6. Accidental release measures

Protein 250 Ethanolamine	disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Protein 250 Destain 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 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 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.
Protein 250 Ladder	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	: High Sensitivity 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 DMSO	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not

Section 7. Handling and storage

	10 x Protein 250 Labeling Buffer	reuse container. Put on appropriate personal protective equipment (see Section 8).
	Protein 250 Ethanolamine	Put on appropriate personal protective equipment (see Section 8).
	Protein 250 Destain Solution	Put on appropriate personal protective equipment (see Section 8).
	Protein 250 Gel Matrix	Put on appropriate personal protective equipment (see Section 8).
	Protein 250 Sample Buffer	Put on appropriate personal protective equipment (see Section 8).
	Protein 250 Ladder	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.
Advice on general occupational hygiene	: High Sensitivity 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 DMSO	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.
	10 x 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.
	Protein 250 Ethanolamine	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Protein 250 Destain Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Protein 250 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

Section 7. Handling and storage

Protein 250 Sample Buffer

for additional information on hygiene measures. 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 Ladder

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

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

Protein 250 DMSO

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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

Protein 250 Ethanolamine

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

Section 7. Handling and storage

Protein 250 Destain Solution

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

Protein 250 Gel Matrix

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

Protein 250 Sample Buffer

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

Protein 250 Ladder

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

7.3 Specific end use(s)

Recommendations

High Sensitivity Protein 250 Labeling Dye	Industrial applications, Professional applications.
Protein 250 DMSO	Industrial applications, Professional applications.
10 x Protein 250 Labeling Buffer	Industrial applications, Professional applications.
Protein 250 Ethanolamine	Industrial applications, Professional applications.
Protein 250 Destain Solution	Industrial applications, Professional applications.
Protein 250 Gel Matrix	Industrial applications, Professional applications.
Protein 250 Sample Buffer	Industrial applications, Professional applications.
Protein 250 Ladder	Industrial applications, Professional applications.

Section 7. Handling and storage

Industrial sector specific solutions	:	High Sensitivity Protein 250 Labeling Dye	Not available.
		Protein 250 DMSO	Not available.
		10 x Protein 250 Labeling Buffer	Not available.
		Protein 250 Ethanolamine	Not available.
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	Not available.
		Protein 250 Ladder	Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
High Sensitivity 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)	None.
Protein 250 DMSO Dimethyl sulfoxide	OARS WEEL (United States, 1/2021). TWA: 250 ppm 8 hours.
10 x Protein 250 Labeling Buffer Trometamol	None.
Protein 250 Destain Solution Trometamol Sodium dodecyl sulphate	None. None.
Protein 250 Gel Matrix Trometamol Sodium dodecyl sulphate	None. None.
Protein 250 Ladder Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust

Biological exposure indices

No exposure indices known.

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor 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.

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 8. Exposure controls/personal protection

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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	:	High Sensitivity Protein 250 Labeling Dye	Solid. [lyophilised]
		Protein 250 DMSO	Liquid.
		10 x Protein 250 Labeling Buffer	Liquid.
		Protein 250 Ethanolamine	Liquid.
		Protein 250 Destain Solution	Liquid.
		Protein 250 Gel Matrix	Liquid.
		Protein 250 Sample Buffer	Liquid.
		Protein 250 Ladder	Liquid.
Color	:	High Sensitivity Protein 250 Labeling Dye	Not available.
		Protein 250 DMSO	Not available.
		10 x Protein 250 Labeling Buffer	Not available.
		Protein 250 Ethanolamine	Not available.
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	Not available.
	Protein 250 Ladder	Not available.	

Section 9. Physical and chemical properties and safety characteristics

Odor	:	High Sensitivity Protein 250	Odorless.
		Labeling Dye	
		Protein 250 DMSO	Not available.
		10 x Protein 250 Labeling Buffer	Not available.
		Protein 250 Ethanolamine	Not available.
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	Not available.
Odor threshold	:	High Sensitivity Protein 250	Not available.
		Labeling Dye	
		Protein 250 DMSO	Not available.
		10 x Protein 250 Labeling Buffer	Not available.
		Protein 250 Ethanolamine	Not available.
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	Not available.
pH	:	High Sensitivity Protein 250	Not available.
		Labeling Dye	
		Protein 250 DMSO	Not available.
		10 x Protein 250 Labeling Buffer	8.6 to 8.9
		Protein 250 Ethanolamine	Not available.
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	Not available.
Melting point/freezing point	:	High Sensitivity Protein 250	Not available.
		Labeling Dye	
		Protein 250 DMSO	18.5°C (65.3°F)
		10 x Protein 250 Labeling Buffer	0°C (32°F)
		Protein 250 Ethanolamine	0°C (32°F)
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	0°C (32°F)
Boiling point, initial boiling point, and boiling range	:	High Sensitivity Protein 250	Not available.
		Labeling Dye	
		Protein 250 DMSO	189°C (372.2°F)
		10 x Protein 250 Labeling Buffer	100°C (212°F)
		Protein 250 Ethanolamine	100°C (212°F)
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	100°C (212°F)
Flash point	:	High Sensitivity Protein 250	Not applicable.
		Labeling Dye	
		Protein 250 DMSO	Closed cup: 87°C (188.6°F) Open cup: 87°C (188.6°F)
		10 x Protein 250 Labeling Buffer	Not available.
		Protein 250 Ethanolamine	Not available.
		Protein 250 Destain Solution	Not available.
		Protein 250 Gel Matrix	Not available.
		Protein 250 Sample Buffer	Not available.
Protein 250 Ladder	Not available.		

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Protein 250 Ladder						
Glycerol				177	350.6	

Evaporation rate	:	<ul style="list-style-type: none"> High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder 	<ul style="list-style-type: none"> Not available. 0.026 (butyl acetate = 1) Not available. Not available. Not available. Not available. Not available. Not available.
Flammability	:	<ul style="list-style-type: none"> High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder 	<ul style="list-style-type: none"> May be combustible at high temperature. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosion limit/flammability limit	:	<ul style="list-style-type: none"> High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder 	<ul style="list-style-type: none"> Not applicable. Lower: 2.6% Upper: 28.5% Not available. Not available. Not available. Not available. Not available. Not available.
Vapor pressure	:	<ul style="list-style-type: none"> High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder 	<ul style="list-style-type: none"> Not available. 0.056 kPa (0.42 mm Hg) Not available. Not available. Not available. Not available. Not available. Not available.

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
10 x Protein 250 Labeling Buffer						
water	23.8	3.2		92.258	12.3	
Trometamol	<0.00075006	<0.0001				
Protein 250 Ethanolamine						
water	23.8	3.2		92.258	12.3	

Section 9. Physical and chemical properties and safety characteristics

Protein 250 Destain Solution					
water	23.8	3.2		92.258	12.3
Sodium dodecyl sulphate	≤0.0013501	≤0.00018			
Protein 250 Gel Matrix					
water	23.8	3.2		92.258	12.3
Sodium dodecyl sulphate	≤0.0013501	≤0.00018			
Protein 250 Sample Buffer					
water	23.8	3.2		92.258	12.3
Protein 250 Ladder					
water	23.8	3.2		92.258	12.3
Glycerol	0.000075	0.00001		0.0025	0.00033

Relative vapor density : High Sensitivity Protein 250 Labeling Dye Not applicable.
 Protein 250 DMSO 2.7 [Air = 1]
 10 x Protein 250 Labeling Buffer Not available.
 Protein 250 Ethanolamine Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Gel Matrix Not available.
 Protein 250 Sample Buffer Not available.
 Protein 250 Ladder Not available.

Relative density : High Sensitivity Protein 250 Labeling Dye Not available.
 Protein 250 DMSO 1.1
 10 x Protein 250 Labeling Buffer Not available.
 Protein 250 Ethanolamine Not available.
 Protein 250 Destain Solution Not available.
 Protein 250 Gel Matrix Not available.
 Protein 250 Sample Buffer Not available.
 Protein 250 Ladder Not available.

Media	Result
High Sensitivity Protein 250 Labeling Dye	
water	Soluble
methanol	Soluble
Protein 250 DMSO	
water	Soluble
10 x Protein 250 Labeling Buffer	
water	Soluble
Protein 250	

Section 9. Physical and chemical properties and safety characteristics

Ethanolamine water	Soluble
Protein 250 Destain Solution water	Soluble
Protein 250 Gel Matrix water	Soluble
Protein 250 Sample Buffer water	Soluble
Protein 250 Ladder water	Soluble

Partition coefficient: n-octanol/water :

- High Sensitivity Protein 250 Labeling Dye Not available.
- Protein 250 DMSO -1.35
- 10 x Protein 250 Labeling Buffer Not applicable.
- Protein 250 Ethanolamine Not applicable.
- Protein 250 Destain Solution Not applicable.
- Protein 250 Gel Matrix Not applicable.
- Protein 250 Sample Buffer Not applicable.
- Protein 250 Ladder Not applicable.

Auto-ignition temperature :

- High Sensitivity Protein 250 Labeling Dye Not applicable.
- Protein 250 DMSO 300 to 302°C (572 to 575.6°F)
- 10 x Protein 250 Labeling Buffer Not available.
- Protein 250 Ethanolamine Not available.
- Protein 250 Destain Solution Not available.
- Protein 250 Gel Matrix Not available.
- Protein 250 Sample Buffer Not available.
- Protein 250 Ladder Not available.

Ingredient name	°C	°F	Method
Protein 250 Destain Solution			
Sodium dodecyl sulphate	310.5	590.9	VDI 2263
Protein 250 Gel Matrix			
Sodium dodecyl sulphate	310.5	590.9	VDI 2263
Protein 250 Ladder			
Glycerol	370	698	

Decomposition temperature :

- High Sensitivity Protein 250 Labeling Dye Not available.
- Protein 250 DMSO Not available.
- 10 x Protein 250 Labeling Buffer Not available.
- Protein 250 Ethanolamine Not available.
- Protein 250 Destain Solution Not available.
- Protein 250 Gel Matrix Not available.
- Protein 250 Sample Buffer Not available.
- Protein 250 Ladder Not available.

Section 9. Physical and chemical properties and safety characteristics

Viscosity	: High Sensitivity Protein 250 Labeling Dye	Not applicable.
	Protein 250 DMSO	Dynamic: 2.14 mPa·s (2.14 cP)
	10 x Protein 250 Labeling Buffer	Not available.
	Protein 250 Ethanolamine	Not available.
	Protein 250 Destain Solution	Not available.
	Protein 250 Gel Matrix	Not available.
	Protein 250 Sample Buffer	Not available.
	Protein 250 Ladder	Not available.

Particle characteristics

Median particle size	: High Sensitivity Protein 250 Labeling Dye	Not available.
	Protein 250 DMSO	Not applicable.
	10 x Protein 250 Labeling Buffer	Not applicable.
	Protein 250 Ethanolamine	Not applicable.
	Protein 250 Destain Solution	Not applicable.
	Protein 250 Gel Matrix	Not applicable.
	Protein 250 Sample Buffer	Not applicable.
	Protein 250 Ladder	Not applicable.

Section 10. Stability and reactivity

10.1 Reactivity	: High Sensitivity Protein 250 Labeling Dye	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 DMSO	No specific test data related to reactivity available for this product or its ingredients.
	10 x Protein 250 Labeling Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 Ethanolamine	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 Destain Solution	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 Gel Matrix	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 Sample Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Protein 250 Ladder	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: High Sensitivity Protein 250 Labeling Dye	The product is stable.
	Protein 250 DMSO	The product is stable.
	10 x Protein 250 Labeling Buffer	The product is stable.
	Protein 250 Ethanolamine	The product is stable.
	Protein 250 Destain Solution	The product is stable.
	Protein 250 Gel Matrix	The product is stable.
	Protein 250 Sample Buffer	The product is stable.
Protein 250 Ladder	The product is stable.	
10.3 Possibility of hazardous reactions	: High Sensitivity Protein 250 Labeling Dye	Under normal conditions of storage and use, hazardous reactions will not occur.
	Protein 250 DMSO	Under normal conditions of storage and use, hazardous reactions will not occur.
	10 x Protein 250 Labeling Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	Protein 250 Ethanolamine	Under normal conditions of storage and use, hazardous reactions will not occur.
	Protein 250 Destain Solution	Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

	Protein 250 Gel Matrix	Under normal conditions of storage and use, hazardous reactions will not occur.
	Protein 250 Sample Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	Protein 250 Ladder	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	<p>High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO</p> <p>10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder</p>	<p>No specific data.</p> <p>Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.</p> <p>No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.</p>
10.5 Incompatible materials	<p>High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO</p> <p>10 x Protein 250 Labeling Buffer</p> <p>Protein 250 Ethanolamine</p> <p>Protein 250 Destain Solution</p> <p>Protein 250 Gel Matrix</p> <p>Protein 250 Sample Buffer</p> <p>Protein 250 Ladder</p>	<p>May react or be incompatible with oxidizing materials.</p> <p>Reactive or incompatible with the following materials: oxidizing materials</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p>
10.6 Hazardous decomposition products	<p>High Sensitivity Protein 250 Labeling Dye</p> <p>Protein 250 DMSO</p> <p>10 x Protein 250 Labeling Buffer</p> <p>Protein 250 Ethanolamine</p> <p>Protein 250 Destain Solution</p> <p>Protein 250 Gel Matrix</p> <p>Protein 250 Sample Buffer</p>	<p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p>

Section 10. Stability and reactivity

Protein 250 Ladder

produced.
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 DMSO Dimethyl sulfoxide	LD50 Dermal LD50 Oral	Rat Rat	40000 mg/kg 14500 mg/kg	- -
10 x Protein 250 Labeling Buffer Trometamol	LD50 Dermal	Rat	>5000 mg/kg	-
Protein 250 Destain Solution Trometamol Sodium dodecyl sulphate	LD50 Dermal LD50 Oral	Rat Rat	>5000 mg/kg 1288 mg/kg	- -
Protein 250 Gel Matrix Trometamol Sodium dodecyl sulphate	LD50 Dermal LD50 Oral	Rat Rat	>5000 mg/kg 1288 mg/kg	- -
Protein 250 Ladder Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Protein 250 DMSO Dimethyl sulfoxide	Eyes - Mild irritant Eyes - Mild irritant	Rabbit Rabbit	- -	100 mg 24 hours 500 mg	- -
	Skin - Mild irritant Skin - Mild irritant	Rabbit Rabbit	- -	100 mg 24 hours 500 mg	- -
10 x Protein 250 Labeling Buffer Trometamol	Skin - Moderate irritant Skin - Severe irritant	Rabbit Rabbit	- -	25 % 500 mg	- -
Protein 250 Destain Solution Trometamol Sodium dodecyl sulphate	Skin - Moderate irritant Skin - Severe irritant Eyes - Mild irritant Eyes - Moderate irritant Eyes - Moderate irritant	Rabbit Rabbit Rabbit Rabbit Rabbit	- - - - -	25 % 500 mg 250 ug 10 mg 24 hours 100 mg	- - - - -
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-

Section 11. Toxicological information

Protein 250 Gel Matrix Trometamol	Skin - Moderate irritant	Rabbit	-	mg 24 hours 25 mg	-
Sodium dodecyl sulphate	Skin - Moderate irritant	Rabbit	-	25 %	-
	Skin - Severe irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
Protein 250 Ladder Glycerol	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

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)

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

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

High Sensitivity Protein 250 Labeling Dye	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Protein 250 DMSO	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
10 x Protein 250 Labeling Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Protein 250 Ethanolamine	Not available.
Protein 250 Destain Solution	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Protein 250 Gel Matrix	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Protein 250 Sample Buffer	Not available.
Protein 250 Ladder	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact

High Sensitivity Protein 250 Labeling Dye	Causes serious eye damage.
Protein 250 DMSO	Causes eye irritation.
10 x Protein 250 Labeling Buffer	No known significant effects or critical hazards.
Protein 250 Ethanolamine	No known significant effects or critical hazards.
Protein 250 Destain Solution	No known significant effects or critical hazards.
Protein 250 Gel Matrix	No known significant effects or critical hazards.
Protein 250 Sample Buffer	No known significant effects or critical hazards.
Protein 250 Ladder	Causes eye irritation.

Inhalation

High Sensitivity Protein 250 Labeling Dye	No known significant effects or critical hazards.
Protein 250 DMSO	No known significant effects or critical hazards.
10 x Protein 250 Labeling Buffer	No known significant effects or critical hazards.
Protein 250 Ethanolamine	No known significant effects or critical hazards.
Protein 250 Destain Solution	No known significant effects or critical hazards.
Protein 250 Gel Matrix	No known significant effects or critical hazards.
Protein 250 Sample Buffer	No known significant effects or critical hazards.
Protein 250 Ladder	No known significant effects or critical hazards.

Skin contact

High Sensitivity Protein 250 Labeling Dye	No known significant effects or critical hazards.
Protein 250 DMSO	No known significant effects or critical hazards.
10 x Protein 250 Labeling Buffer	No known significant effects or critical hazards.
Protein 250 Ethanolamine	No known significant effects or critical hazards.
Protein 250 Destain Solution	No known significant effects or critical hazards.
Protein 250 Gel Matrix	No known significant effects or critical hazards.
Protein 250 Sample Buffer	No known significant effects or critical hazards.
Protein 250 Ladder	No known significant effects or critical hazards.

Ingestion

High Sensitivity Protein 250 Labeling Dye	No known significant effects or critical hazards.
Protein 250 DMSO	No known significant effects or critical hazards.
10 x Protein 250 Labeling Buffer	No known significant effects or critical hazards.
Protein 250 Ethanolamine	No known significant effects or critical hazards.
Protein 250 Destain Solution	No known significant effects or critical hazards.
Protein 250 Gel Matrix	No known significant effects or critical hazards.
Protein 250 Sample Buffer	No known significant effects or critical hazards.
Protein 250 Ladder	No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	High Sensitivity Protein 250 Labeling Dye	Adverse symptoms may include the following: pain watering redness
		Protein 250 DMSO	Adverse symptoms may include the following: irritation watering redness
		10 x Protein 250 Labeling Buffer	No specific data.
		Protein 250 Ethanolamine	No specific data.
		Protein 250 Destain Solution	No specific data.
		Protein 250 Gel Matrix	No specific data.
		Protein 250 Sample Buffer Protein 250 Ladder	No specific data. Adverse symptoms may include the following: irritation watering redness
Inhalation	:	High Sensitivity Protein 250 Labeling Dye	No specific data.
		Protein 250 DMSO	No specific data.
		10 x Protein 250 Labeling Buffer	No specific data.
		Protein 250 Ethanolamine	No specific data.
		Protein 250 Destain Solution	No specific data.
		Protein 250 Gel Matrix	No specific data.
		Protein 250 Sample Buffer Protein 250 Ladder	No specific data. No specific data.
Skin contact	:	High Sensitivity Protein 250 Labeling Dye	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		Protein 250 DMSO	No specific data.
		10 x Protein 250 Labeling Buffer	No specific data.
		Protein 250 Ethanolamine	No specific data.
		Protein 250 Destain Solution	No specific data.
		Protein 250 Gel Matrix	No specific data.
		Protein 250 Sample Buffer Protein 250 Ladder	No specific data. No specific data.
Ingestion	:	High Sensitivity Protein 250 Labeling Dye	Adverse symptoms may include the following: stomach pains
		Protein 250 DMSO	No specific data.
		10 x Protein 250 Labeling Buffer	No specific data.
		Protein 250 Ethanolamine	No specific data.
		Protein 250 Destain Solution	No specific data.
		Protein 250 Gel Matrix	No specific data.
		Protein 250 Sample Buffer Protein 250 Ladder	No specific data. No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	: High Sensitivity Protein 250 Labeling Dye Protein 250 DMSO 10 x Protein 250 Labeling Buffer Protein 250 Ethanolamine Protein 250 Destain Solution Protein 250 Gel Matrix Protein 250 Sample Buffer Protein 250 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
High Sensitivity Protein 250 DMSO Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A
Protein 250 Destain Solution Protein 250 Destain Solution Sodium dodecyl sulphate	128800.1 1288	N/A N/A	N/A N/A	N/A N/A	150.0 1.5
Protein 250 Gel Matrix Protein 250 Gel Matrix	128805.2	N/A	N/A	N/A	132.9

Section 11. Toxicological information

Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5
Protein 250 Ladder					
Glycerol	12600	N/A	N/A	N/A	N/A

Other information	: High Sensitivity Protein 250 Labeling Dye	Not available.
	Protein 250 DMSO	Not available.
	10 x Protein 250 Labeling Buffer	Not available.
	Protein 250 Ethanolamine	Not available.
	Protein 250 Destain Solution	Not available.
	Protein 250 Gel Matrix	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
	Protein 250 Sample Buffer	Not available.
Protein 250 Ladder	Not available.	

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Protein 250 DMSO Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 34000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Ulva lactuca	72 hours
	Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days
10 x Protein 250 Labeling Buffer Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours
Protein 250 Destain Solution Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours
Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water	Algae - 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 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 -	48 hours

Section 12. Ecological information

Protein 250 Ladder Glycerol	Acute LC50 1400 µg/l Fresh water	Adult 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
	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Protein 250 DMSO Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-
10 x Protein 250 Labeling Buffer Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-
Protein 250 Destain Solution Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-
Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	Activated sludge
Protein 250 Gel Matrix Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-
Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	Activated sludge

Section 12. Ecological information

Protein 250 Ladder Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
---------------------------------------	---	----------------	---	---

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Protein 250 DMSO Dimethyl sulfoxide	-	-	Not readily
10 x Protein 250 Labeling Buffer Trometamol	-	-	Readily
Protein 250 Destain Solution Trometamol	-	-	Readily
Sodium dodecyl sulphate	-	-	Readily
Protein 250 Gel Matrix Trometamol	-	-	Readily
Sodium dodecyl sulphate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Protein 250 DMSO Protein 250 DMSO	-1.35	-	low
Dimethyl sulfoxide	-1.35	3.16	low
10 x Protein 250 Labeling Buffer Trometamol	-2.31	-	low
Protein 250 Destain Solution Trometamol	-2.31	-	low
Sodium dodecyl sulphate	-2.03	-	low
Protein 250 Gel Matrix Trometamol	-2.31	-	low
Sodium dodecyl sulphate	-2.03	-	low
Protein 250 Ladder Glycerol	-1.76	-	low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

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

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Protein 250 Ladder Sodium azide	<0.1	Yes.	500	-	1000	-

SARA 304 RQ : 8888888.9 lbs / 4035555.6 kg

SARA 311/312

Classification	:	High Sensitivity Protein 250 Labeling Dye	SERIOUS EYE DAMAGE - Category 1
		Protein 250 DMSO	FLAMMABLE LIQUIDS - Category 4
			EYE IRRITATION - Category 2B
		10 x Protein 250 Labeling Buffer	Not applicable.
		Protein 250 Ethanolamine	Not applicable.
		Protein 250 Destain Solution	Not applicable.
		Protein 250 Gel Matrix	Not applicable.
		Protein 250 Sample Buffer	Not applicable.
		Protein 250 Ladder	EYE IRRITATION - Category 2B

Composition/information on ingredients

Name	%	Classification
High Sensitivity 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)	100	SERIOUS EYE DAMAGE - Category 1
Protein 250 DMSO Dimethyl sulfoxide	100	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B
10 x Protein 250 Labeling Buffer Trometamol	≤5	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Protein 250 Destain Solution Trometamol	≤5	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Sodium dodecyl sulphate	≤2.4	FLAMMABLE SOLIDS - Category 2 COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Protein 250 Gel Matrix Methylurea	≤5	COMBUSTIBLE DUSTS
Trometamol	≤5	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Section 15. Regulatory information

Sodium dodecyl sulphate	≤2.4	FLAMMABLE SOLIDS - Category 2 COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Protein 250 Ladder Glycerol	≥10 - ≤25	EYE IRRITATION - Category 2B

State regulations

- Massachusetts** : The following components are listed: GLYCERINE MIST
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: DIMETHYL SULFOXIDE; GLYCERIN
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL
- California Prop. 65**

This product does not require a Safe Harbor warning under California Prop. 65.

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.
- 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.

Section 16. Other information

[Procedure used to derive the classification](#)

Classification	Justification
High Sensitivity Protein 250 Labeling Dye SERIOUS EYE DAMAGE - Category 1	Expert judgment
Protein 250 DMSO FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B	On basis of test data Calculation method
Protein 250 Ladder EYE IRRITATION - Category 2B	Calculation method

[History](#)

Date of issue : 11/28/2022

Date of previous issue : 08/04/2020

Version : 9

Key to abbreviations :

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

📌 Indicates information that has changed from previously issued version.

[Notice to reader](#)

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