



# SAFETY DATA SHEET


ProteoAnalyzer Verification Kit, Part Number 5191-6642

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

1.1 Product identifier

Product name	: ProteoAnalyzer Verification Kit, Part Number 5191-6642	
CAS number	:  Protein Fluorescent Dye Not available.	
	Dye Resuspension DMF	68-12-2
	Capillary Storage Solution	Not applicable.
	Protein Conditioning Solution	Not applicable.
	2x Protein Inlet Buffer	Not applicable.
	Protein Broad Range Gel	Not applicable.
	P240 Broad Range Ladder	Not applicable.
	10x Protein Labeling Buffer	Not applicable.
Part no. (chemical kit)	: 5191-6642	
Part no.	:  Protein Verification Kit, 5008-0020	
	RT	
	Protein Fluorescent Dye	5191-6650
	Dye Resuspension DMF	5191-6651
	Capillary Storage Solution	GP-440-0100
	Protein Conditioning Solution	5008-0015
	2x Protein Inlet Buffer	5008-0017
	Protein Broad Range Gel	5008-0016
	Protein Verification Kit, -20C	5008-0019
	P240 Broad Range Ladder	5191-6648
	10x Protein Labeling Buffer	5191-6647

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

Identified uses	: Analytical reagent.	
	 Protein Fluorescent Dye	50 µg
	Dye Resuspension DMF	1.5 ml
	Capillary Storage Solution	100 ml
	Protein Conditioning Solution	175 ml
	2x Protein Inlet Buffer	75 ml
	Protein Broad Range Gel	60 ml
	P240 Broad Range Ladder	0.03 ml
	10x Protein Labeling Buffer	1.1 ml
Uses advised against	: None known.	

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany  
0800 603 1000  
e-mail address of person responsible for this SDS : pdl-msds\_author@agilent.com

1.4 Emergency telephone number

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

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	Protein Fluorescent Dye	Mono-constituent substance
	Dye Resuspension DMF	Mono-constituent substance
	Capillary Storage Solution	Mixture
	Protein Conditioning Solution	Mixture
	2x Protein Inlet Buffer	Mixture
	Protein Broad Range Gel	Mixture
	P240 Broad Range Ladder	Mixture
	10x Protein Labeling Buffer	Mixture

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

Dye Resuspension DMF

H226	FLAMMABLE LIQUIDS	Category 3
H312	ACUTE TOXICITY (dermal)	Category 4
H332	ACUTE TOXICITY (inhalation)	Category 4
H319	SERIOUS EYE DAMAGE/EYE IRRITATION	Category 2
H360D	REPRODUCTIVE TOXICITY	Category 1B

Capillary Storage Solution

H317	SKIN SENSITISATION	Category 1
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Protein Fluorescent Dye	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
Dye Resuspension DMF	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
Capillary Storage Solution	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
Protein Conditioning Solution	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
2x Protein Inlet Buffer	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
Protein Broad Range Gel	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
P240 Broad Range Ladder	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
10x Protein Labeling Buffer	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity	Capillary Storage Solution	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: > 60%
	Protein Conditioning Solution	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
	2x Protein Inlet Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
	Protein Broad Range Gel	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
	P240 Broad Range Ladder	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
	10x Protein Labeling Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 10 - 30%
		Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

**SECTION 2: Hazards identification**

**Ingredients of unknown ecotoxicity** : 2x Protein Inlet Buffer

Protein Broad Range Gel

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 10 - 30%

Contains 4.5% of components with unknown hazards to the aquatic environment

Contains 2.2% of components with unknown hazards to the aquatic environment

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

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

**2.2 Label elements**

**Hazard pictograms** : Dye Resuspension DMF



Capillary Storage Solution



**Signal word**

: Protein Fluorescent Dye  
Dye Resuspension DMF  
Capillary Storage Solution  
Protein Conditioning  
Solution  
2x Protein Inlet Buffer  
Protein Broad Range Gel  
P240 Broad Range  
Ladder  
10x Protein Labeling  
Buffer

No signal word.  
Danger  
Warning  
No signal word.  
No signal word.  
No signal word.  
No signal word.  
No signal word.

**Hazard statements**

: Protein Fluorescent Dye  
Dye Resuspension DMF  
  
Capillary Storage Solution  
Protein Conditioning  
Solution  
2x Protein Inlet Buffer  
Protein Broad Range Gel  
P240 Broad Range  
Ladder  
10x Protein Labeling  
Buffer

No known significant effects or critical hazards.  
H226 - Flammable liquid and vapour.  
H312 + H332 - Harmful in contact with skin or if inhaled.  
H319 - Causes serious eye irritation.  
H360D - May damage the unborn child.  
H317 - May cause an allergic skin reaction.  
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.

**Precautionary statements**

**Prevention**

: Protein Fluorescent Dye  
Dye Resuspension DMF  
  
Capillary Storage Solution  
  
Protein Conditioning  
Solution  
2x Protein Inlet Buffer  
Protein Broad Range Gel  
P240 Broad Range

Not applicable.  
P201 - Obtain special instructions before use.  
P280 - Wear protective gloves, protective clothing and eye or face protection.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 - Avoid breathing vapour.  
P280 - Wear protective gloves.  
P261 - Avoid breathing vapour.  
Not applicable.  
Not applicable.  
Not applicable.  
Not applicable.

**SECTION 2: Hazards identification**

	Ladder	
	10x Protein Labeling Buffer	Not applicable.
<b>Response</b>	: Protein Fluorescent Dye	Not applicable.
	Dye Resuspension DMF	P308 + P313 - IF exposed or concerned: Get medical advice or attention.
	Capillary Storage Solution	P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
	Protein Conditioning Solution	Not applicable.
	2x Protein Inlet Buffer	Not applicable.
	Protein Broad Range Gel	Not applicable.
	P240 Broad Range	Not applicable.
	Ladder	
	10x Protein Labeling Buffer	Not applicable.
<b>Storage</b>	: Protein Fluorescent Dye	Not applicable.
	Dye Resuspension DMF	Not applicable.
	Capillary Storage Solution	Not applicable.
	Protein Conditioning Solution	Not applicable.
	2x Protein Inlet Buffer	Not applicable.
	Protein Broad Range Gel	Not applicable.
	P240 Broad Range	Not applicable.
	Ladder	
	10x Protein Labeling Buffer	Not applicable.
<b>Disposal</b>	: Protein Fluorescent Dye	Not applicable.
	Dye Resuspension DMF	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Capillary Storage Solution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Protein Conditioning Solution	Not applicable.
	2x Protein Inlet Buffer	Not applicable.
	Protein Broad Range Gel	Not applicable.
	P240 Broad Range	Not applicable.
	Ladder	
	10x Protein Labeling Buffer	Not applicable.
<b>Hazardous ingredients</b>	: Capillary Storage Solution	2-methylisothiazol-3(2H)-one
<b>Supplemental label elements</b>	: Protein Fluorescent Dye	Not applicable.
	Dye Resuspension DMF	Not applicable.
	Capillary Storage Solution	Not applicable.
	Protein Conditioning Solution	Not applicable.
	2x Protein Inlet Buffer	Safety data sheet available on request.
	Protein Broad Range Gel	Safety data sheet available on request.
	P240 Broad Range	Not applicable.
	Ladder	
	10x Protein Labeling Buffer	Safety data sheet available on request.

SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Protein Fluorescent Dye	Not applicable.
	Dye Resuspension DMF	Restricted to professional users.
	Capillary Storage Solution	Not applicable.
	Protein Conditioning Solution	Not applicable.
	2x Protein Inlet Buffer	Not applicable.
	Protein Broad Range Gel	Not applicable.
	P240 Broad Range Ladder	Not applicable.
	10x Protein Labeling Buffer	Not applicable.

Special packaging requirements

Tactile warning of danger	Protein Fluorescent Dye	Not applicable.
	Dye Resuspension DMF	Not applicable.
	Capillary Storage Solution	Not applicable.
	Protein Conditioning Solution	Not applicable.
	2x Protein Inlet Buffer	Not applicable.
	Protein Broad Range Gel	Not applicable.
	P240 Broad Range Ladder	Not applicable.
	10x Protein Labeling Buffer	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	PBT	P	B	T	vPvB	vP	vB
	Protein Fluorescent Dye						
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Dye Resuspension DMF						
Other hazards which do not result in classification	No	N/A	No	Yes	No	N/A	No
	Capillary Storage Solution	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.					
	Protein Conditioning Solution	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.					
	2x Protein Inlet Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.					
	Protein Broad Range Gel	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.					
	P240 Broad Range Ladder	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.					
	10x Protein Labeling Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.					
	Protein Fluorescent Dye	May form combustible dust concentrations in air.					
	Dye Resuspension DMF	None known.					
	Capillary Storage Solution	None known.					

SECTION 3: Composition/information on ingredients

3.1 Substances	:	Protein Fluorescent Dye	Mono-constituent substance
		Dye Resuspension DMF	Mono-constituent substance
		Capillary Storage Solution	Mixture
		Protein Conditioning Solution	Mixture
		2x Protein Inlet Buffer	Mixture
		Protein Broad Range Gel	Mixture
		P240 Broad Range Ladder	Mixture
		10x Protein Labeling Buffer	Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Protein Fluorescent Dye					
Proprietary	-	100	Not classified.	-	[1]
Dye Resuspension DMF					
N,N-dimethylformamide	EC: 200-679-5 CAS: 68-12-2	100	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 Repr. 1B, H360D	ATE [Dermal] = 1500 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1]
Capillary Storage Solution					
glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	-	[2]
2-methylisothiazol-3(2H)-one	EC: 220-239-6 CAS: 2682-20-4 Index: 613-326-00-9	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 285.5 mg/kg ATE [Dermal] = 242 mg/kg ATE [Inhalation (dusts and mists)] = 0.11 mg/l Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 10 M [Chronic] = 1	[1]
2x Protein Inlet Buffer					
trometamol	EC: 201-064-4 CAS: 77-86-1	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319	-	[1]
Protein Broad Range Gel					
trometamol	EC: 201-064-4 CAS: 77-86-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319	-	[1]
P240 Broad Range Ladder					
glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	-	[1]
10x Protein Labeling					

SECTION 3: Composition/information on ingredients

Buffer					
sodium dodecyl sulphate	EC: 205-788-1 CAS: 151-21-3	≤5	Flam. Sol. 2, H228 Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 3, H412  See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 1288 mg/kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l Eye Dam. 1, H318: C ≥ 20% Eye Irrit. 2, H319: 10% ≤ C < 20% M [Acute] = 1	[1]

\* Non-hazardous ingredients

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type	
Protein Fluorescent Dye	[1] Constituent
Dye Resuspension DMF	[1] Constituent
Capillary Storage Solution	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit
2x Protein Inlet Buffer	[1] Substance classified with a health or environmental hazard
Protein Broad Range Gel	[1] Substance classified with a health or environmental hazard
P240 Broad Range Ladder	[1] Substance with a workplace exposure limit
10x Protein Labeling Buffer	[1] Substance classified with a health or environmental hazard

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Protein Fluorescent Dye	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.
	Dye Resuspension DMF	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. Get medical attention.
	Capillary Storage Solution	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. Get medical attention if irritation occurs.
	Protein Conditioning 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.
	2x Protein Inlet 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 Broad Range Gel	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.
	P240 Broad Range Ladder	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.
	10x Protein 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.



**SECTION 4: First aid measures****Inhalation**

Protein Fluorescent Dye	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Dye Resuspension DMF	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. Get medical attention. If necessary, call a poison center or physician. 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.
Capillary Storage Solution	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. 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 Conditioning 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.
2x Protein Inlet Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Protein Broad Range Gel	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.
P240 Broad Range Ladder	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
10x Protein Labeling Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.



**SECTION 4: First aid measures****Skin contact**

Protein Fluorescent Dye	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Dye Resuspension DMF	Wash with plenty of soap and 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. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Capillary Storage Solution	Wash with plenty of soap and 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Protein Conditioning Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
2x Protein Inlet Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Protein Broad Range Gel	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
P240 Broad Range Ladder	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
10x Protein Labeling Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**

Protein Fluorescent Dye	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.
Dye Resuspension DMF	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. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
Capillary Storage Solution	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.
Protein Conditioning 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.

**SECTION 4: First aid measures**

2x Protein Inlet 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 Broad Range Gel	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.
P240 Broad Range Ladder	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.
10x Protein 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.

<b>Protection of first-aiders</b>	:	Protein Fluorescent Dye	No action shall be taken involving any personal risk or without suitable training.
		Dye Resuspension DMF	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.
		Capillary Storage Solution	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
		Protein Conditioning Solution	No action shall be taken involving any personal risk or without suitable training.
		2x Protein Inlet Buffer	No action shall be taken involving any personal risk or without suitable training.
		Protein Broad Range Gel	No action shall be taken involving any personal risk or without suitable training.
		P240 Broad Range Ladder	No action shall be taken involving any personal risk or without suitable training.
		10x Protein Labeling Buffer	No action shall be taken involving any personal risk or without suitable training.

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

<b>Eye contact</b>	:	Protein Fluorescent Dye	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		Dye Resuspension DMF	Causes serious eye irritation.
		Capillary Storage Solution	No known significant effects or critical hazards.
		Protein Conditioning Solution	No known significant effects or critical hazards.
		2x Protein Inlet Buffer	No known significant effects or critical hazards.
		Protein Broad Range Gel	No known significant effects or critical hazards.
		P240 Broad Range Ladder	No known significant effects or critical hazards.
		10x Protein Labeling Buffer	No known significant effects or critical hazards.

**SECTION 4: First aid measures**

<b>Inhalation</b>	<b>:</b>	Protein Fluorescent Dye	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
		Dye Resuspension DMF	Harmful if inhaled.
		Capillary Storage Solution	No known significant effects or critical hazards.
		Protein Conditioning Solution	No known significant effects or critical hazards.
		2x Protein Inlet Buffer	No known significant effects or critical hazards.
		Protein Broad Range Gel P240 Broad Range Ladder	No known significant effects or critical hazards.
		10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Skin contact</b>	<b>:</b>	Protein Fluorescent Dye	No known significant effects or critical hazards.
		Dye Resuspension DMF	Harmful in contact with skin.
		Capillary Storage Solution	May cause an allergic skin reaction.
		Protein Conditioning Solution	No known significant effects or critical hazards.
		2x Protein Inlet Buffer	No known significant effects or critical hazards.
		Protein Broad Range Gel P240 Broad Range Ladder	No known significant effects or critical hazards.
		10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Ingestion</b>	<b>:</b>	Protein Fluorescent Dye	No known significant effects or critical hazards.
		Dye Resuspension DMF	No known significant effects or critical hazards.
		Capillary Storage Solution	No known significant effects or critical hazards.
		Protein Conditioning Solution	No known significant effects or critical hazards.
		2x Protein Inlet Buffer	No known significant effects or critical hazards.
		Protein Broad Range Gel P240 Broad Range Ladder	No known significant effects or critical hazards.
		10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b><u>Over-exposure signs/symptoms</u></b>			
<b>Eye contact</b>	<b>:</b>	Protein Fluorescent Dye	Adverse symptoms may include the following: irritation redness
		Dye Resuspension DMF	Adverse symptoms may include the following: pain or irritation watering redness
		Capillary Storage Solution	No specific data.
		Protein Conditioning Solution	No specific data.
		2x Protein Inlet Buffer	No specific data.
		Protein Broad Range Gel P240 Broad Range Ladder	No specific data.
		10x Protein Labeling Buffer	No specific data.
<b>Inhalation</b>	<b>:</b>	Protein Fluorescent Dye	Adverse symptoms may include the following: respiratory tract irritation coughing
		Dye Resuspension DMF	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		Capillary Storage Solution	No specific data.
		Protein Conditioning Solution	No specific data.
		2x Protein Inlet Buffer	No specific data.

**SECTION 4: First aid measures****Skin contact**

Protein Broad Range Gel	No specific data.
P240 Broad Range	No specific data.
Ladder	
10x Protein Labeling Buffer	No specific data.
Protein Fluorescent Dye	No specific data.
Dye Resuspension DMF	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Capillary Storage Solution	Adverse symptoms may include the following: irritation redness
Protein Conditioning Solution	No specific data.
2x Protein Inlet Buffer	No specific data.
Protein Broad Range Gel	No specific data.
P240 Broad Range	No specific data.
Ladder	
10x Protein Labeling Buffer	No specific data.

**Ingestion**

Protein Fluorescent Dye	No specific data.
Dye Resuspension DMF	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Capillary Storage Solution	No specific data.
Protein Conditioning Solution	No specific data.
2x Protein Inlet Buffer	No specific data.
Protein Broad Range Gel	No specific data.
P240 Broad Range	No specific data.
Ladder	
10x Protein Labeling Buffer	No specific data.

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

Protein Fluorescent Dye	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Dye Resuspension DMF	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.
Capillary Storage Solution	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Protein Conditioning Solution	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
2x Protein Inlet 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.
Protein Broad Range Gel	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.
P240 Broad Range	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Ladder	
10x Protein Labeling Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**SECTION 4: First aid measures**

<b>Specific treatments</b>	<b>:</b>	Protein Fluorescent Dye	No specific treatment.
		Dye Resuspension DMF	No specific treatment.
		Capillary Storage Solution	No specific treatment.
		Protein Conditioning Solution	No specific treatment.
		2x Protein Inlet Buffer	No specific treatment.
		Protein Broad Range Gel	No specific treatment.
		P240 Broad Range Ladder	No specific treatment.
		10x Protein Labeling Buffer	No specific treatment.


**SECTION 5: Firefighting measures****5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	<b>:</b>	Protein Fluorescent Dye	Use dry chemical powder.
		Dye Resuspension DMF	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
		Capillary Storage Solution	Use an extinguishing agent suitable for the surrounding fire.
		Protein Conditioning Solution	Use an extinguishing agent suitable for the surrounding fire.
		2x Protein Inlet Buffer	Use an extinguishing agent suitable for the surrounding fire.
		Protein Broad Range Gel	Use an extinguishing agent suitable for the surrounding fire.
		P240 Broad Range Ladder	Use an extinguishing agent suitable for the surrounding fire.
		10x Protein Labeling Buffer	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	<b>:</b>	Protein Fluorescent Dye	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
		Dye Resuspension DMF	Do not use water jet.
		Capillary Storage Solution	None known.
		Protein Conditioning Solution	None known.
		2x Protein Inlet Buffer	None known.
		Protein Broad Range Gel	None known.
		P240 Broad Range Ladder	None known.
		10x Protein Labeling Buffer	None known.


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

<b>Hazards from the substance or mixture</b>	<b>:</b>	Protein Fluorescent Dye	May form explosible dust-air mixture if dispersed.
		Dye Resuspension DMF	Flammable liquid and vapour. 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 vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
		Capillary Storage Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
		Protein Conditioning Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
		2x Protein Inlet Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
		Protein Broad Range Gel	In a fire or if heated, a pressure increase will occur and the container may burst.
		P240 Broad Range Ladder	In a fire or if heated, a pressure increase will occur and the container may burst.
		10x Protein Labeling Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.

**SECTION 5: Firefighting measures**





<b>Hazardous combustion products</b>	 Protein Fluorescent Dye	No specific data.
	Dye Resuspension DMF	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	Capillary Storage Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
	Protein Conditioning Solution	Decomposition products may include the following materials:  carbon dioxide carbon monoxide nitrogen oxides
	2x Protein Inlet Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	Protein Broad Range Gel	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	P240 Broad Range Ladder	Decomposition products may include the following materials:  carbon dioxide carbon monoxide
	10x Protein Labeling Buffer	Decomposition products may include the following materials:  carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides

**5.3 Advice for firefighters**



<b>Special precautions for fire-fighters</b>	 Protein Fluorescent 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Dye Resuspension DMF	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.
	Capillary Storage 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 Conditioning 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.
	2x Protein Inlet 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 Broad Range Gel	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.
	P240 Broad Range 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.
	10x Protein 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



**SECTION 5: Firefighting measures****Special protective equipment for fire-fighters**

:  Protein Fluorescent Dye	taken involving any personal risk or without suitable training.
	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Dye Resuspension DMF
	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Capillary Storage Solution
	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Protein Conditioning Solution
	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
:  Protein Fluorescent Dye	2x Protein Inlet Buffer
	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Protein Broad Range Gel
	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	P240 Broad Range Ladder
:  Protein Fluorescent Dye	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	10x Protein Labeling Buffer
:  Protein Fluorescent Dye	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

:  Protein Fluorescent Dye	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
	Dye Resuspension DMF
:  Protein Fluorescent Dye	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all



**SECTION 6: Accidental release measures**

ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Capillary Storage Solution No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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


2x Protein Inlet Buffer No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

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

P240 Broad Range 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 spilt material. Put on appropriate personal protective equipment.

10x Protein Labeling Buffer No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

**For emergency responders**

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

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

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

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

2x Protein Inlet Buffer If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

P240 Broad Range Ladder If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**SECTION 6: Accidental release measures****6.2 Environmental precautions**

10x Protein Labeling Buffer		emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Protein Fluorescent Dye		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Dye Resuspension DMF		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Capillary Storage Solution		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Protein Conditioning Solution		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
2x Protein Inlet Buffer		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Protein Broad Range Gel		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
P240 Broad Range Ladder		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
10x Protein Labeling Buffer		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

Protein Fluorescent Dye		Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Dye Resuspension DMF		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.
Capillary Storage 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 Conditioning 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.
2x Protein Inlet Buffer		Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively,


SECTION 6: Accidental release measures

	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 Broad Range Gel	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.
P240 Broad Range 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.
10x Protein 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.

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

SECTION 7: Handling and storage


7.1 Precautions for safe handling

Protective measures	:  Protein Fluorescent Dye	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
	Dye Resuspension DMF	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour 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. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Capillary Storage Solution	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when

SECTION 7: Handling and storage

		not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Protein Conditioning Solution	Put on appropriate personal protective equipment (see Section 8).
	2x Protein Inlet Buffer	Put on appropriate personal protective equipment (see Section 8).
	Protein Broad Range Gel	Put on appropriate personal protective equipment (see Section 8).
	P240 Broad Range Ladder	Put on appropriate personal protective equipment (see Section 8).
	10x Protein Labeling Buffer	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Protein Fluorescent 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.
	Dye Resuspension DMF	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.
	Capillary Storage 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 Conditioning 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.
	2x Protein Inlet 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 Broad Range Gel	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.
	P240 Broad Range 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.
	10x Protein 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.

7.2 Conditions for safe storage, including any incompatibilities

**SECTION 7: Handling and storage****Storage**:  Protein Fluorescent Dye

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

Dye Resuspension DMF

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. Store locked up. Eliminate all ignition sources. Separate from oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Capillary Storage Solution

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

Protein Conditioning Solution

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

2x Protein Inlet Buffer

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

Protein Broad Range Gel

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



SECTION 7: Handling and storage



P240 Broad Range 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
10x Protein Labeling Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Dye Resuspension DMF P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations	 Protein Fluorescent Dye	Industrial applications, Professional applications.
	Dye Resuspension DMF	Industrial applications, Professional applications.
	Capillary Storage Solution	Industrial applications, Professional applications.
	Protein Conditioning Solution	Industrial applications, Professional applications.
	2x Protein Inlet Buffer	Industrial applications, Professional applications.
	Protein Broad Range Gel	Industrial applications, Professional applications.
	P240 Broad Range Ladder	Industrial applications, Professional applications.
	10x Protein Labeling Buffer	Industrial applications, Professional applications.
Industrial sector specific solutions	 Protein Fluorescent Dye	Not available.
	Dye Resuspension DMF	Not available.
	Capillary Storage Solution	Not available.
	Protein Conditioning Solution	Not available.
	2x Protein Inlet Buffer	Not available.
	Protein Broad Range Gel	Not available.
	P240 Broad Range Ladder	Not available.
	10x Protein Labeling Buffer	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	<b>NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values</b> OELV-8hr: 5 ppm 8 hours. OELV-8hr: 15 mg/m <sup>3</sup> 8 hours. OELV-15min: 10 ppm 15 minutes. OELV-15min: 30 mg/m <sup>3</sup> 15 minutes.
<b>Capillary Storage Solution</b> Glycerol	<b>NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)</b> OELV-8hr: 10 mg/m <sup>3</sup> 8 hours. Form: mist
<b>P240 Broad Range Ladder</b> Glycerol	<b>NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)</b> OELV-8hr: 10 mg/m <sup>3</sup> 8 hours. Form: mist

Biological exposure indices

Product/ingredient name	Exposure indices
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	<b>NAOSH (Ireland, 1/2011)</b> BMGV: 15 mg/l, N-methylformamide [in urine]. Sampling time: post shift.

Recommended monitoring procedures

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

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	DNEL	Long term Inhalation	6 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	1.1 mg/kg bw/day	Workers	Systemic
<b>Capillary Storage Solution</b> 2-methylisothiazol-3(2H)-one	DNEL	Long term Inhalation	0.021 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	0.021 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.027 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0.043 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	0.043 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Oral	0.053 mg/kg bw/day	General population	Systemic
<b>2x Protein Inlet Buffer</b> Trometamol	DNEL	Long term Oral	8.3 mg/kg bw/day	General population	Systemic



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

<b>Protein Broad Range Gel</b> Trometamol	DNEL	Long term Inhalation	29 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	83.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	117.5 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	166.7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	8.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	29 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	83.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	117.5 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	166.7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	24 mg/kg bw/day	General population	Systemic
<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	DNEL	Long term Inhalation	85 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	285 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	2440 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4060 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	4060 mg/kg bw/day	Workers	Systemic

**PNECs**

No PNECs available

**8.2 Exposure controls**

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

**Individual protection measures**

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

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

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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

SECTION 8: Exposure controls/personal protection

Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Protein Fluorescent Dye	Solid. [Lyophilized Powder.]
	Dye Resuspension DMF	Liquid.
	Capillary Storage Solution	Liquid.
	Protein Conditioning Solution	Liquid.
	2x Protein Inlet Buffer	Liquid.
	Protein Broad Range Gel	Liquid.
	P240 Broad Range Ladder	Liquid.
	10x Protein Labeling Buffer	Liquid.
Colour	: Protein Fluorescent Dye	Yellow./ Brown.
	Dye Resuspension DMF	Colourless to light yellow.
	Capillary Storage Solution	Not available.
	Protein Conditioning Solution	Not available.
	2x Protein Inlet Buffer	Not available.
	Protein Broad Range Gel	Not available.
	P240 Broad Range Ladder	Not available.
	10x Protein Labeling Buffer	Not available.
Odour	: Protein Fluorescent Dye	Not available.
	Dye Resuspension DMF	Faint odour. [Slight]
	Capillary Storage Solution	Not available.
	Protein Conditioning Solution	Not available.
	2x Protein Inlet Buffer	Not available.
	Protein Broad Range Gel	Not available.
	P240 Broad Range Ladder	Not available.
	10x Protein Labeling Buffer	Not available.
Odour threshold	: Protein Fluorescent Dye	Not available.
	Dye Resuspension DMF	Not available.
	Capillary Storage Solution	Not available.
	Protein Conditioning Solution	Not available.
	2x Protein Inlet Buffer	Not available.
	Protein Broad Range Gel	Not available.
	P240 Broad Range Ladder	Not available.
	10x Protein Labeling Buffer	Not available.

**SECTION 9: Physical and chemical properties**

<b>Melting point/freezing point</b>	:	Protein Fluorescent Dye	Not available.
		Dye Resuspension DMF	-61°C
		Capillary Storage Solution	Not available.
		Protein Conditioning Solution	Not available.
		2x Protein Inlet Buffer	Not available.
		Protein Broad Range Gel	Not available.
		P240 Broad Range Ladder	Not available.
		10x Protein Labeling Buffer	Not available.
<b>Initial boiling point and boiling range</b>	:	Protein Fluorescent Dye	Not available.
		Dye Resuspension DMF	153°C
		Capillary Storage Solution	Not available.
		Protein Conditioning Solution	Not available.
		2x Protein Inlet Buffer	Not available.
		Protein Broad Range Gel	Not available.
		P240 Broad Range Ladder	Not available.
		10x Protein Labeling Buffer	Not available.
<b>Flammability</b>	:	Protein Fluorescent Dye	Not available.
		Dye Resuspension DMF	Not applicable.
		Capillary Storage Solution	Not applicable.
		Protein Conditioning Solution	Not applicable.
		2x Protein Inlet Buffer	Not applicable.
		Protein Broad Range Gel	Not applicable.
		P240 Broad Range Ladder	Not applicable.
		10x Protein Labeling Buffer	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	:	Protein Fluorescent Dye	Not applicable.
		Dye Resuspension DMF	Lower: 2.2% Upper: 15.2%
		Capillary Storage Solution	Not available.
		Protein Conditioning Solution	Not available.
		2x Protein Inlet Buffer	Not available.
		Protein Broad Range Gel	Not available.
		P240 Broad Range Ladder	Not available.
		10x Protein Labeling Buffer	Not available.
<b>Flash point</b>	:	Protein Fluorescent Dye	Not applicable.
		Dye Resuspension DMF	Closed cup: 57.5°C [DIN 51755]
		Capillary Storage Solution	Not available.
		Protein Conditioning Solution	Not available.
		2x Protein Inlet Buffer	Not available.
		Protein Broad Range Gel	Not available.
		P240 Broad Range Ladder	Not available.
		10x Protein Labeling Buffer	Not available.

SECTION 9: Physical and chemical properties

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
<b>Capillary Storage Solution</b>				
glycerol	-	-	177	-
<b>P240 Broad Range Ladder</b>				
glycerol	-	-	177	-
<b>10x Protein Labeling Buffer</b>				
sodium dodecyl sulphate	170	-	-	-

Auto-ignition temperature : Protein Fluorescent Dye Not applicable.  
Dye Resuspension DMF 445°C

Ingredient name	°C	Method
<b>Capillary Storage Solution</b>		
glycerol	370	-
<b>P240 Broad Range Ladder</b>		
glycerol	370	-
<b>10x Protein Labeling Buffer</b>		
sodium dodecyl sulphate	310.5	VDI 2263

Decomposition temperature : Protein Fluorescent Dye Not available.  
Dye Resuspension DMF >350°C  
Capillary Storage Solution Not available.  
Protein Conditioning Solution Not available.  
2x Protein Inlet Buffer Not available.  
Protein Broad Range Gel Not available.  
P240 Broad Range Ladder Not available.  
10x Protein Labeling Buffer Not available.

pH : Protein Fluorescent Dye Not available.  
Dye Resuspension DMF 6.7  
Capillary Storage Solution 8.3  
Protein Conditioning Solution 9.68 to 9.94  
2x Protein Inlet Buffer 8.18 to 8.31  
Protein Broad Range Gel 8 to 8.5  
P240 Broad Range Ladder 8.4 to 8.6  
10x Protein Labeling Buffer 8.87

Viscosity : Protein Fluorescent Dye Not applicable.  
Dye Resuspension DMF Dynamic: 0.802 mPa·s  
Capillary Storage Solution Not available.  
Protein Conditioning Solution Not available.  
2x Protein Inlet Buffer Not available.  
Protein Broad Range Gel Not available.  
P240 Broad Range Ladder Not available.

SECTION 9: Physical and chemical properties

		Ladder						
		10x Protein Labeling	Not available.					
		Buffer						
Solubility(ies)	:	<b>Media</b>	<b>Result</b>					
		<b>Protein Fluorescent Dye</b>						
		water	Soluble					
		<b>Dye Resuspension DMF</b>						
		water	Soluble					
		<b>Capilary Storage Solution</b>						
		water	Soluble					
		<b>Protein Conditioning Solution</b>						
		water	Soluble					
		<b>2x Protein Inlet Buffer</b>						
		water	Soluble					
Partition coefficient: n-octanol/water	:	<b>Protein Broad Range Gel</b>						
		water	Soluble					
		<b>P240 Broad Range Ladder</b>						
		water	Soluble					
		<b>10x Protein Labeling Buffer</b>						
		water	Soluble					
		<b>Protein Fluorescent Dye</b>	Not applicable.					
		Dye Resuspension DMF	-1.01					
		Capilary Storage Solution	Not applicable.					
		Protein Conditioning Solution	Not applicable.					
	Vapour pressure	:	2x Protein Inlet Buffer	Not applicable.				
		Protein Broad Range Gel	Not applicable.					
		P240 Broad Range Ladder	Not applicable.					
		10x Protein Labeling	Not applicable.					
		Buffer						
		Dye Resuspension DMF	0.49 kPa (3.7 mm Hg)					
		<b>Ingredient name</b>	<b>Vapour Pressure at 20°C</b>	<b>Vapour pressure at 50°C</b>				
			<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>
		<b>Capilary Storage Solution</b>						
		water	17.5	2.3	-	92.258	12.3	-
		glycerol	0.000075	0.00001	-	0.0025	0.00033	-
	<b>Protein Conditioning Solution</b>							
	water	17.5	2.3	-	92.258	12.3	-	
	<b>2x Protein Inlet Buffer</b>							
	water	17.5	2.3	-	92.258	12.3	-	
	trometamol	<0.00075006	<0.0001	-	-	-	-	
	<b>Protein Broad Range Gel</b>							

**SECTION 9: Physical and chemical properties**

water	17.5	2.3	-	92.258	12.3	-
trometamol	<0.00075006	<0.0001	-	-	-	-
<b>P240 Broad Range Ladder</b>						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-
<b>10x Protein Labeling Buffer</b>						
water	17.5	2.3	-	92.258	12.3	-
sodium dodecyl sulphate	≤0.0013501	≤0.00018	-	-	-	-

**Evaporation rate** : Protein Fluorescent Dye Not available.  
Dye Resuspension DMF 0.2 (butyl acetate = 1)  
Capillary Storage Solution Not available.  
Protein Conditioning Solution Not available.  
2x Protein Inlet Buffer Not available.  
Protein Broad Range Gel Not available.  
P240 Broad Range Ladder Not available.  
10x Protein Labeling Buffer Not available.

**Relative density** : Protein Fluorescent Dye Not available.  
Dye Resuspension DMF 0.95  
Capillary Storage Solution Not available.  
Protein Conditioning Solution Not available.  
2x Protein Inlet Buffer Not available.  
Protein Broad Range Gel Not available.  
P240 Broad Range Ladder Not available.  
10x Protein Labeling Buffer Not available.

**Vapour density** : Protein Fluorescent Dye Not applicable.  
Dye Resuspension DMF 2.5 [Air = 1]  
Capillary Storage Solution Not available.  
Protein Conditioning Solution Not available.  
2x Protein Inlet Buffer Not available.  
Protein Broad Range Gel Not available.  
P240 Broad Range Ladder Not available.  
10x Protein Labeling Buffer Not available.

**Explosive properties** : Protein Fluorescent Dye Not available.  
Dye Resuspension DMF Not available.  
Capillary Storage Solution Not available.  
Protein Conditioning Solution Not available.  
2x Protein Inlet Buffer Not available.  
Protein Broad Range Gel Not available.  
P240 Broad Range Ladder Not available.  
10x Protein Labeling Buffer Not available.

**SECTION 9: Physical and chemical properties****Oxidising properties**

Buffer	
Protein Fluorescent Dye	Not available.
Dye Resuspension DMF	Not available.
Capillary Storage Solution	Not available.
Protein Conditioning Solution	Not available.
2x Protein Inlet Buffer	Not available.
Protein Broad Range Gel	Not available.
P240 Broad Range Ladder	Not available.
10x Protein Labeling Buffer	Not available.

**Particle characteristics****Median particle size**

Protein Fluorescent Dye	Not available.
Dye Resuspension DMF	Not applicable.
Capillary Storage Solution	Not applicable.
Protein Conditioning Solution	Not applicable.
2x Protein Inlet Buffer	Not applicable.
Protein Broad Range Gel	Not applicable.
P240 Broad Range Ladder	Not applicable.
10x Protein Labeling Buffer	Not applicable.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Protein Fluorescent Dye	No specific test data related to reactivity available for this product or its ingredients.
Dye Resuspension DMF	No specific test data related to reactivity available for this product or its ingredients.
Capillary Storage Solution	No specific test data related to reactivity available for this product or its ingredients.
Protein Conditioning Solution	No specific test data related to reactivity available for this product or its ingredients.
2x Protein Inlet Buffer	No specific test data related to reactivity available for this product or its ingredients.
Protein Broad Range Gel	No specific test data related to reactivity available for this product or its ingredients.
P240 Broad Range Ladder	No specific test data related to reactivity available for this product or its ingredients.
10x Protein Labeling Buffer	No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability**

Protein Fluorescent Dye	The product is stable.
Dye Resuspension DMF	The product is stable.
Capillary Storage Solution	The product is stable.
Protein Conditioning Solution	The product is stable.
2x Protein Inlet Buffer	The product is stable.
Protein Broad Range Gel	The product is stable.
P240 Broad Range Ladder	The product is stable.
10x Protein Labeling Buffer	The product is stable.



**SECTION 10: Stability and reactivity****10.3 Possibility of hazardous reactions**

Protein Fluorescent Dye	Under normal conditions of storage and use, hazardous reactions will not occur.
Dye Resuspension DMF	Under normal conditions of storage and use, hazardous reactions will not occur.
Capillary Storage Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
Protein Conditioning Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
2x Protein Inlet Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Protein Broad Range Gel	Under normal conditions of storage and use, hazardous reactions will not occur.
P240 Broad Range Ladder	Under normal conditions of storage and use, hazardous reactions will not occur.
10x Protein Labeling Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid**

Protein Fluorescent Dye	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
Dye Resuspension DMF	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
Capillary Storage Solution	No specific data.
Protein Conditioning Solution	No specific data.
2x Protein Inlet Buffer	No specific data.
Protein Broad Range Gel	No specific data.
P240 Broad Range Ladder	No specific data.
10x Protein Labeling Buffer	No specific data.

**10.5 Incompatible materials**

Protein Fluorescent Dye	Reactive or incompatible with the following materials: oxidising materials
Dye Resuspension DMF	Reactive or incompatible with the following materials: oxidising materials
Capillary Storage Solution	May react or be incompatible with oxidising materials.
Protein Conditioning Solution	May react or be incompatible with oxidising materials.
2x Protein Inlet Buffer	May react or be incompatible with oxidising materials.
Protein Broad Range Gel	May react or be incompatible with oxidising materials.
P240 Broad Range Ladder	May react or be incompatible with oxidising materials.
10x Protein Labeling Buffer	May react or be incompatible with oxidising materials.

**10.6 Hazardous decomposition products**

Protein Fluorescent Dye	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Dye Resuspension DMF	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Capillary Storage Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Protein Conditioning Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
2x Protein Inlet Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Protein Broad Range Gel	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 10: Stability and reactivity

P240 Broad Range	decomposition products should not be produced.
Ladder	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
10x Protein Labeling	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	LC50 Inhalation Vapour LC50 Inhalation Vapour LD50 Oral	Rat Rat Rat	3421 ppm 1948 ppm 4000 mg/kg	1 hours 4 hours -
<b>Capillary Storage Solution</b> 2-methylisothiazol-3(2H)-one	LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat - Male, Female Rat - Male, Female Rat - Male, Female	0.11 mg/l 242 mg/kg 285.5 mg/kg	4 hours - -
<b>2x Protein Inlet Buffer</b> Trometamol	LD50 Dermal	Rat	>5000 mg/kg	-
<b>Protein Broad Range Gel</b> Trometamol	LD50 Dermal	Rat	>5000 mg/kg	-
<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	4000	1500	N/A	11	N/A
<b>Capillary Storage Solution</b> 2-methylisothiazol-3(2H)-one	285.5	242	N/A	N/A	0.11
<b>10x Protein Labeling Buffer</b> 10x Protein Labeling Buffer Sodium dodecyl sulphate	31813.6 1288	N/A N/A	N/A N/A	N/A N/A	37.0 1.5

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	Eyes - Severe irritant	Rabbit	-	100 %	-
<b>2x Protein Inlet Buffer</b> Trometamol	Skin - Moderate irritant Skin - Severe irritant	Rabbit Rabbit	- -	25 % 500 mg	- -
<b>Protein Broad Range Gel</b> Trometamol	Skin - Moderate irritant Skin - Severe irritant	Rabbit Rabbit	- -	25 % 500 mg	- -

SECTION 11: Toxicological information

<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-

Sensitiser

**Conclusion/Summary** : Not available.

Mutagenicity

**Conclusion/Summary** : Not available.

Carcinogenicity

**Conclusion/Summary** : Not available.

Reproductive toxicity

**Conclusion/Summary** : Not available.

Teratogenicity

**Conclusion/Summary** : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

**Information on likely routes of exposure**

Protein Fluorescent Dye	Not available.
Dye Resuspension DMF	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Capillary Storage Solution	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Protein Conditioning Solution	Not available.
2x Protein Inlet Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Protein Broad Range Gel	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
P240 Broad Range Ladder	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
10x Protein Labeling Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

<b>Inhalation</b>	Protein Fluorescent Dye	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	Dye Resuspension DMF	Harmful if inhaled.
	Capillary Storage Solution	No known significant effects or critical hazards.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range Ladder	No known significant effects or critical hazards.

**SECTION 11: Toxicological information**

	10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Ingestion</b>	: Protein Fluorescent Dye	No known significant effects or critical hazards.
	Dye Resuspension DMF	No known significant effects or critical hazards.
	Capillary Storage Solution	No known significant effects or critical hazards.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range Ladder	No known significant effects or critical hazards.
	10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Skin contact</b>	: Protein Fluorescent Dye	No known significant effects or critical hazards.
	Dye Resuspension DMF	Harmful in contact with skin.
	Capillary Storage Solution	May cause an allergic skin reaction.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range Ladder	No known significant effects or critical hazards.
	10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Eye contact</b>	: Protein Fluorescent Dye	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	Dye Resuspension DMF	Causes serious eye irritation.
	Capillary Storage Solution	No known significant effects or critical hazards.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range Ladder	No known significant effects or critical hazards.
	10x Protein Labeling Buffer	No known significant effects or critical hazards.

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

<b>Inhalation</b>	: Protein Fluorescent Dye	Adverse symptoms may include the following: respiratory tract irritation coughing
	Dye Resuspension DMF	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	Capillary Storage Solution	No specific data.
	Protein Conditioning Solution	No specific data.
	2x Protein Inlet Buffer	No specific data.
	Protein Broad Range Gel	No specific data.
	P240 Broad Range Ladder	No specific data.
	10x Protein Labeling Buffer	No specific data.
<b>Ingestion</b>	: Protein Fluorescent Dye	No specific data.
	Dye Resuspension DMF	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	Capillary Storage Solution	No specific data.
	Protein Conditioning Solution	No specific data.
	2x Protein Inlet Buffer	No specific data.

**SECTION 11: Toxicological information**

<b>Skin contact</b>	Protein Broad Range Gel	No specific data.
	P240 Broad Range	No specific data.
	Ladder	
	10x Protein Labeling Buffer	No specific data.
	Protein Fluorescent Dye	No specific data.
	Dye Resuspension DMF	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	Capillary Storage Solution	Adverse symptoms may include the following: irritation redness
	Protein Conditioning Solution	No specific data.
	2x Protein Inlet Buffer	No specific data.
	Protein Broad Range Gel	No specific data.
<b>Eye contact</b>	P240 Broad Range	No specific data.
	Ladder	
	10x Protein Labeling Buffer	No specific data.
	Protein Fluorescent Dye	Adverse symptoms may include the following: irritation redness
	Dye Resuspension DMF	Adverse symptoms may include the following: pain or irritation watering redness
	Capillary Storage Solution	No specific data.
	Protein Conditioning Solution	No specific data.
	2x Protein Inlet Buffer	No specific data.
	Protein Broad Range Gel	No specific data.
	P240 Broad Range	No specific data.
	Ladder	
	10x Protein Labeling Buffer	No specific data.

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

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

**Conclusion/Summary** : Not available.

<b>General</b>	Protein Fluorescent Dye	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Dye Resuspension DMF	No known significant effects or critical hazards.
	Capillary Storage Solution	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range	No known significant effects or critical hazards.

**SECTION 11: Toxicological information**

	Ladder	
	10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	Protein Fluorescent Dye	No known significant effects or critical hazards.
	Dye Resuspension DMF	No known significant effects or critical hazards.
	Capillary Storage Solution	No known significant effects or critical hazards.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range	No known significant effects or critical hazards.
	Ladder	
	10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Mutagenicity</b>	Protein Fluorescent Dye	No known significant effects or critical hazards.
	Dye Resuspension DMF	No known significant effects or critical hazards.
	Capillary Storage Solution	No known significant effects or critical hazards.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range	No known significant effects or critical hazards.
	Ladder	
	10x Protein Labeling Buffer	No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	Protein Fluorescent Dye	No known significant effects or critical hazards.
	Dye Resuspension DMF	May damage the unborn child.
	Capillary Storage Solution	No known significant effects or critical hazards.
	Protein Conditioning Solution	No known significant effects or critical hazards.
	2x Protein Inlet Buffer	No known significant effects or critical hazards.
	Protein Broad Range Gel	No known significant effects or critical hazards.
	P240 Broad Range	No known significant effects or critical hazards.
	Ladder	
	10x Protein Labeling Buffer	No known significant effects or critical hazards.

**11.2 Information on other hazards****11.2.1 Endocrine disrupting properties**

Not available.

**11.2.2 Other information**

Dye Resuspension DMF	Adverse symptoms include the following: central nervous system depression, liver abnormalities.
Capillary Storage Solution	Adverse symptoms may include the following: May cause skin sensitisation.

**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	Acute EC50 14.4 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute EC50 7100000 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	96 hours
	Acute LC50 >100000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 hours
	Chronic NOEC 1500 mg/l Fresh water	- Adult	
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
<b>Capillary Storage Solution</b> 2-methylisothiazol-3(2H)-one		Fish - <i>Oncorhynchus mykiss</i>	30 days
		Embryo	
	Acute EC50 0.18 ppm Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 0.07 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

**SECTION 12: Ecological information**

<b>2x Protein Inlet Buffer</b> Trometamol	Chronic NOEC 0.044 mg/l Fresh water	Daphnia	21 days
	Chronic NOEC 4.93 mg/l Fresh water	Fish	98 days
<b>Protein Broad Range Gel</b> Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours
<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours
	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Capillary Storage Solution</b> 2-methylisothiazol-3(2H)-one	301D Ready Biodegradability - Closed Bottle Test	0 % - Not readily - 28 days	-	-
<b>2x Protein Inlet Buffer</b> Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-
<b>Protein Broad Range Gel</b> Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-
<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO2 Evolution Test	95 % - Readily - 28 days	20 mg/l	-



SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>Capillary Storage Solution</b> 2-methylisothiazol-3(2H)-one	-	-	Not readily
<b>2x Protein Inlet Buffer</b> Trometamol	-	-	Readily
<b>Protein Broad Range Gel</b> Trometamol	-	-	Readily
<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	-1.01	0.79	Low
<b>Capillary Storage Solution</b> 2-methylisothiazol-3(2H)-one	0.119	-	Low
<b>2x Protein Inlet Buffer</b> Trometamol	-2.31	-	Low
<b>Protein Broad Range Gel</b> Trometamol	-2.31	-	Low
<b>10x Protein Labeling Buffer</b> Sodium dodecyl sulphate	-2.03	-	Low

12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
<b>Protein Fluorescent Dye</b> Proprietary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Dye Resuspension DMF</b> N,N-Dimethylformamide	No	N/A	No	Yes	No	N/A	No

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

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




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

**Packaging**

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

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	ADR/RID	IMDG	IATA
<b>14.1 UN number or ID number</b>	UN3316	UN3316	UN3316
<b>14.2 UN proper shipping name</b>	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
<b>14.3 Transport hazard class(es)</b>	9 	9 	9 
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>	No.	No.	No.

**Additional information**

**ADR/RID** : **Hazard identification number** 90  
**Limited quantity** See SP 251  
**Special provisions** 251, 340, 671  
**Tunnel code** (E)

**IMDG** : **Emergency schedules** F-A, \_S-P\_  
**Special provisions** 251, 340

**IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y960.  
**Special provisions** A44, A163

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

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

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Dye Resuspension DMF N,N-Dimethylformamide	Toxic to reproduction	Recommended	ED/169/2012	2/6/2014

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

Product / Ingredient name	Identifiers	Designation [Usage]
Dye Resuspension DMF N,N-Dimethylformamide		3 30 76
Capillary Storage Solution Capillary Storage Solution		3

Label	: Protein Fluorescent Dye Dye Resuspension DMF Capillary Storage Solution Protein Conditioning Solution 2x Protein Inlet Buffer Protein Broad Range Gel P240 Broad Range Ladder 10x Protein Labeling Buffer	Not applicable. Restricted to professional users. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

Danger criteria

Category
Dye Resuspension DMF P5c

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
Dye Resuspension DMF N,N-dimethylformamide	Ireland Occupational Exposure Limits	dimethylformamide	Repro. Repr.1B	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

SECTION 15: Regulatory information

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	: At least one component is not listed.
Viet Nam	: Not determined.

15.2 Chemical safety assessment	: This product contains substances for which Chemical Safety Assessments might still be required.
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SECTION 16: Other information

Indicates information that has changed from previously issued version.

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

Classification	Justification
<b>Dye Resuspension DMF</b> Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 Repr. 1B, H360D	Expert judgment Expert judgment On basis of test data Expert judgment Expert judgment
<b>Capillary Storage Solution</b> Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

**SECTION 16: Other information**

<b>Dye Resuspension DMF</b> H226 H312 H319 H332 H360D  <b>Capillary Storage Solution</b> H301 H311 H314 H317 H318 H330 H400 H410 EUH071  <b>2x Protein Inlet Buffer</b> H315 H319  <b>Protein Broad Range Gel</b> H315 H319  <b>10x Protein Labeling Buffer</b> H228 H302 H315 H318 H332 H335 H400 H412	Flammable liquid and vapour. Harmful in contact with skin. Causes serious eye irritation. Harmful if inhaled. May damage the unborn child.  Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Fatal if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Corrosive to the respiratory tract.  Causes skin irritation. Causes serious eye irritation.  Causes skin irritation. Causes serious eye irritation.  Flammable solid. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.
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**Full text of classifications [CLP/GHS]**

<b>Dye Resuspension DMF</b> Acute Tox. 4 Eye Irrit. 2 Flam. Liq. 3 Repr. 1B  <b>Capillary Storage Solution</b> Acute Tox. 2 Acute Tox. 3 Aquatic Acute 1 Aquatic Chronic 1 Eye Dam. 1 Skin Corr. 1B Skin Sens. 1 Skin Sens. 1A  <b>2x Protein Inlet Buffer</b> Eye Irrit. 2 Skin Irrit. 2  <b>Protein Broad Range Gel</b> Eye Irrit. 2 Skin Irrit. 2  <b>10x Protein Labeling Buffer</b> Acute Tox. 4	ACUTE TOXICITY - Category 4 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 3 REPRODUCTIVE TOXICITY - Category 1B  ACUTE TOXICITY - Category 2 ACUTE TOXICITY - Category 3 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN CORROSION/IRRITATION - Category 1B SKIN SENSITISATION - Category 1 SKIN SENSITISATION - Category 1A  SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2  SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2  ACUTE TOXICITY - Category 4
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SECTION 16: Other information

Aquatic Acute 1 Aquatic Chronic 3 Eye Dam. 1 Flam. Sol. 2 Skin Irrit. 2 STOT SE 3	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 FLAMMABLE SOLIDS - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
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Version : 2.1

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