

SAFETY DATA SHEET



ProteoAnalyzer Verification Kit, Part Number 5191-6642

Section 1. Identification

Product identifier	: ProteoAnalyzer Verification Kit, Part Number 5191-6642
Part no. (chemical kit)	: 5191-6642
Part no.	: <u>Protein Verification Kit, RT</u> 5008-0020
	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
	<u>Protein Verification Kit, -20C</u> 5008-0019
	P240 Broad Range Ladder 5191-6648
	10x Protein Labeling Buffer 5191-6647

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

Identified uses	: Analytical reagent.
	<u>Protein Fluorescent Dye</u> 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

Supplier/Manufacturer	: Agilent Technologies Australia Pty Ltd 679 Springvale Road Mulgrave Victoria 3170, Australia 1800 802 402
------------------------------	---

Emergency telephone number (with hours of operation)	: CHEMTREC®: +(61)-290372994
---	------------------------------

Section 2. Hazard(s) identification

Classification of the substance or mixture

Dye Resuspension DMF

H226	FLAMMABLE LIQUIDS - Category 3
H312	ACUTE TOXICITY (dermal) - Category 4
H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

Capillary Storage Solution

H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B
H317	SKIN SENSITISATION - Category 1

P240 Broad Range Ladder

H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B
------	---

10x Protein Labeling Buffer

H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
------	--

Section 2. Hazard(s) identification

2x Protein Inlet Buffer

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.5%
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.2%

Protein Broad Range Gel

GHS label elements

Hazard pictograms

: Dye Resuspension DMF



Capillary Storage Solution



10x Protein Labeling Buffer



Signal word

: Protein Fluorescent Dye No signal word.
Dye Resuspension DMF WARNING
Capillary Storage Solution WARNING
Protein Conditioning Solution No signal word.
2x Protein Inlet Buffer No signal word.
Protein Broad Range Gel No signal word.
P240 Broad Range Ladder WARNING
10x Protein Labeling Buffer DANGER

Hazard statements

: Protein Fluorescent Dye No known significant effects or critical hazards.
Dye Resuspension DMF H226 - Flammable liquid and vapour.
H312 - Harmful in contact with skin.
H319 - Causes serious eye irritation.
Capillary Storage Solution H317 - May cause an allergic skin reaction.
H320 - Causes eye irritation.
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 H320 - Causes eye irritation.
10x Protein Labeling Buffer H318 - Causes serious eye damage.

Precautionary statements

Prevention

: Protein Fluorescent Dye Not applicable.
Dye Resuspension DMF P280 - Wear protective gloves and protective clothing.
Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Capillary Storage Solution P280 - Wear protective gloves.
P261 - Avoid breathing vapour.
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 P280 - Wear eye or face protection.

Response

: Protein Fluorescent Dye Not applicable.
Dye Resuspension DMF P302 + P312 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Section 2. Hazard(s) identification

	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 Ladder	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
	10x Protein Labeling Buffer	P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: 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.
Disposal	: 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 Ladder	Not applicable.
	10x Protein Labeling Buffer	Not applicable.
Supplemental label elements		
Additional warning phrases	: 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.
Other hazards which do not result in classification	: Protein Fluorescent Dye	May form combustible dust concentrations in air.
	Dye Resuspension DMF	None known.
	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.

Section 3. Composition and ingredient information

Substance/mixture	:	Protein Fluorescent Dye	Substance
		Dye Resuspension DMF	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

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Protein Fluorescent Dye		
Proprietary	100	-
Dye Resuspension DMF		
N,N-Dimethylformamide	100	68-12-2
Capillary Storage Solution		
Glycerol	≥60 - ≤75	56-81-5
2-Methyl-2H-isothiazol-3-one	<0.1	2682-20-4
P240 Broad Range Ladder		
Glycerol	≥10 - ≤30	56-81-5
10x Protein Labeling Buffer		
Sodium dodecyl sulphate	≤5	151-21-3

* Non-hazardous ingredients

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

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

Section 4. First aid measures

Description of necessary 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. If irritation persists, get medical attention.
		Protein Conditioning Solution	Immediately flush eyes with plenty of water,

Section 4. First aid measures

		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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	10x Protein Labeling Buffer	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
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 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.
	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

Section 4. First aid measures

Protein Broad Range Gel

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.

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. 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.

10x Protein Labeling Buffer

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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 adverse health effects persist or are severe. 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

Section 4. First aid measures

	Protein Broad Range Gel	medical attention if symptoms occur. 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	10x Protein Labeling Buffer	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
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 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.
	Capillary Storage Solution	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.
	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

Section 4. First aid measures

P240 Broad Range Ladder

personnel. Get medical attention if symptoms occur. 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.

10x Protein Labeling Buffer

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Protein Fluorescent Dye

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

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

Causes serious eye irritation.
Causes eye irritation.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
Causes eye irritation.
Causes serious eye damage.

Inhalation

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

Skin contact

: 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.
Harmful in contact with skin.
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.

Section 4. First aid measures

Ingestion

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.

Over-exposure signs/symptoms

Eye contact

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	Adverse symptoms may include the following: irritation watering redness
Protein Conditioning Solution	No specific data.
2x Protein Inlet Buffer	No specific data.
Protein Broad Range Gel	No specific data.
P240 Broad Range Ladder	Adverse symptoms may include the following: irritation watering redness
10x Protein Labeling Buffer	Adverse symptoms may include the following: pain watering redness

Inhalation

Protein Fluorescent Dye	Adverse symptoms may include the following: respiratory tract irritation coughing
Dye Resuspension DMF	No specific data.
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.

Skin contact

Protein Fluorescent Dye	No specific data.
Dye Resuspension DMF	No specific data.
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 Ladder	No specific data.
10x Protein Labeling Buffer	Adverse symptoms may include the following: pain or irritation redness blistering may occur

Ingestion

Protein Fluorescent Dye	No specific data.
Dye Resuspension DMF	No specific data.
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.

Section 4. First aid measures

10x Protein Labeling Buffer

Adverse symptoms may include the following:
stomach pains

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

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 Ladder	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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.

Specific treatments

: 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.

Protection of first-aiders

: 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. 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.

Section 4. First aid measures

P240 Broad Range Ladder	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
10x Protein Labeling Buffer	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.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

Protein Fluorescent Dye	Use dry chemical powder.
Dye Resuspension DMF	Use dry chemical, CO ₂ , 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.

Unsuitable extinguishing media

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.

Specific hazards arising from the chemical

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

Section 5. Firefighting measures

Hazardous thermal decomposition products


Protein Fluorescent Dye	and the container may burst.
Dye Resuspension DMF	No specific data. 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 nitrogen oxides
10x Protein Labeling Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides

Special protective actions for fire-fighters


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

Section 5. Firefighting measures

Special protective equipment for fire-fighters

Protein Broad Range Gel	without suitable training. 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 taken involving any personal risk or without suitable training.
 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.
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.
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.
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.
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.
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.
P240 Broad Range Ladder	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
10x Protein Labeling Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazchem code

 Protein Fluorescent Dye	Not available.
Dye Resuspension DMF	.2Y
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 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Section 6. Accidental release measures

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

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 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Section 6. Accidental release measures


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".
	10x Protein Labeling Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions	 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).

Section 6. Accidental release measures

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).

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, 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.

Section 7. Handling and storage

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). Do not ingest. Avoid contact with eyes, skin and clothing. 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 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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

10x Protein Labeling Buffer

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in

Section 7. Handling and storage

Advice on general occupational hygiene

:  Protein Fluorescent Dye

use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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.

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.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : 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. 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

Section 7. Handling and storage

P240 Broad Range Ladder

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.

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

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Dye Resuspension DMF N,N-Dimethylformamide	Safe Work Australia (Australia, 10/2022). Absorbed through skin. TWA: 30 mg/m ³ 8 hours. TWA: 10 ppm 8 hours.
Capillary Storage Solution Glycerol 2-Methyl-2H-isothiazol-3-one	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours. DFG MAC-values list (Germany, 7/2022). Skin sensitiser.
P240 Broad Range Ladder Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.

Biological exposure indices

No exposure indices known.

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.

Section 8. Exposure controls and personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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

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



Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.







Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	 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.


Section 9. Physical and chemical properties and safety characteristics


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.
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
Melting point/freezing point	 Protein Fluorescent Dye	Not available.
	Dye Resuspension DMF	-61°C (-77.8°F)
	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.
Boiling point, initial boiling point, and boiling range	 Protein Fluorescent Dye	Not available.
	Dye Resuspension DMF	153°C (307.4°F)
	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.
Flash point	 Protein Fluorescent Dye	Not applicable.
	Dye Resuspension DMF	Closed cup: 57.5°C (135.5°F) [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.


Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Capillary Storage Solution						
Glycerol	-	-	-	177	350.6	-
P240 Broad Range Ladder						

Section 9. Physical and chemical properties and safety characteristics


	Glycerol	-	-	-	177	350.6	-
	10x Protein Labeling Buffer						
	Sodium dodecyl sulphate	170	338	-	-	-	-

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.

Flammability :  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.

Lower and upper explosion limit/flammability limit :  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.

Vapour pressure : Dye Resuspension DMF 0.49 kPa (3.7 mm Hg)

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
 Capillary Storage Solution						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Protein Conditioning Solution						
water	17.5	2.3	-	92.258	12.3	-
2x Protein Inlet Buffer						
water	17.5	2.3	-	92.258	12.3	-
Protein Broad						

Section 9. Physical and chemical properties and safety characteristics

	Range Gel						
	water	17.5	2.3	-	92.258	12.3	-
	P240 Broad Range Ladder						
	water	17.5	2.3	-	92.258	12.3	-
	Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
	10x Protein Labeling Buffer						
	water	17.5	2.3	-	92.258	12.3	-
	Sodium dodecyl sulphate	≤0.0013501	≤0.00018	-	-	-	-
Relative 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.				
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.				
Solubility(ies)	: Media		Result				
	Protein Fluorescent Dye						
	water		Soluble				
	Dye Resuspension DMF						
	water		Soluble				
	Capillary Storage Solution						
	water		Soluble				
	Protein Conditioning Solution						
	water		Soluble				
	2x Protein Inlet Buffer						
	water		Soluble				
	Protein Broad Range Gel						
	water		Soluble				
	P240 Broad Range Ladder						
	water		Soluble				
	10x Protein Labeling Buffer						
	water		Soluble				
Partition coefficient: n-octanol/water	: Protein Fluorescent Dye		Not applicable.				
	Dye Resuspension DMF		-1.01				
	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.				

Section 9. Physical and chemical properties and safety characteristics

Auto-ignition temperature	10x Protein Labeling Buffer	Not applicable.		
	Protein Fluorescent Dye	Not applicable.		
	Dye Resuspension DMF	445°C (833°F)		
	Ingredient name	°C	°F	Method
	Capillary Storage Solution			
	Glycerol	370	698	-
	P240 Broad Range Ladder			
Glycerol	370	698	-	
10x Protein Labeling Buffer				
	Sodium dodecyl sulphate	310.5	590.9	VDI 2263
	Decomposition temperature	Protein Fluorescent Dye	Not available.	
Dye Resuspension DMF	>350°C (>662°F)			
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.			
Viscosity	Protein Fluorescent Dye	Not applicable.		
	Dye Resuspension DMF	Dynamic: 0.802 mPa·s (0.802 cP)		
	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.		

Section 10. Stability and reactivity

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

Section 10. Stability and reactivity

this product or its ingredients.

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.

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.

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.

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.

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Dye Resuspension DMF 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 -
Capillary Storage Solution Glycerol 2-Methyl-2H-isothiazol-3-one	LD50 Oral LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat Rat - Male, Female Rat - Male, Female Rat - Male, Female	12600 mg/kg 0.11 mg/l 242 mg/kg 285.5 mg/kg	- 4 hours - -
P240 Broad Range Ladder Glycerol	LD50 Oral	Rat	12600 mg/kg	-
10x Protein Labeling Buffer Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Dye Resuspension DMF N,N-Dimethylformamide	Eyes - Severe irritant	Rabbit	-	100 %	-
Capillary Storage Solution Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Section 11. Toxicological information

P240 Broad Range Ladder Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
10x Protein Labeling Buffer 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	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
10x Protein Labeling Buffer 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.

Section 11. Toxicological information

Potential acute health effects

Eye contact	:	 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	Causes eye irritation.
		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	Causes eye irritation.
Inhalation	:	 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	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.
Skin contact	:	 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.
Ingestion	:	 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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	 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	Adverse symptoms may include the following: irritation watering redness
		Protein Conditioning Solution	No specific data.
		2x Protein Inlet Buffer	No specific data.
		Protein Broad Range Gel	No specific data.
		P240 Broad Range Ladder	Adverse symptoms may include the following: irritation watering redness
		10x Protein Labeling Buffer	Adverse symptoms may include the following: pain watering redness

Section 11. Toxicological information

Inhalation	:	Protein Fluorescent Dye	Adverse symptoms may include the following: respiratory tract irritation coughing
		Dye Resuspension DMF	No specific data.
		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.
Skin contact	:	Protein Fluorescent Dye	No specific data.
		Dye Resuspension DMF	No specific data.
		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 Ladder	No specific data.
Ingestion	:	Protein Fluorescent Dye	No specific data.
		Dye Resuspension DMF	No specific data.
		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	Adverse symptoms may include the following: stomach pains

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	:	Protein 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 Ladder	No known significant effects or critical hazards.
		10x Protein Labeling Buffer	No known significant effects or critical hazards.

Section 11. Toxicological information

Carcinogenicity	: 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.
Mutagenicity	: 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.
Reproductive toxicity	: 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.

Numerical measures of toxicity

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)
Dye Resuspension DMF N,N-Dimethylformamide	4000	1500	N/A	N/A	N/A
Capillary Storage Solution Glycerol	12600	N/A	N/A	N/A	N/A
2-Methyl-2H-isothiazol-3-one	285.5	242	N/A	N/A	0.11
P240 Broad Range Ladder Glycerol	12600	N/A	N/A	N/A	N/A
10x Protein Labeling Buffer 10x Protein Labeling Buffer	31813.6	27170.0	N/A	N/A	N/A
Sodium dodecyl sulphate	1288	1100	N/A	N/A	N/A

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

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Dye Resuspension DMF N,N-Dimethylformamide	Acute EC50 14.4 mg/l Fresh water Acute EC50 7100000 µg/l Fresh water Acute LC50 >100000 µg/l Marine water Chronic NOEC 1500 mg/l Fresh water Chronic NOEC 0.1 ml/L Fresh water	Daphnia - <i>Daphnia magna</i> Fish - <i>Lepomis macrochirus</i> Crustaceans - <i>Crangon crangon</i> - Adult Daphnia - <i>Daphnia magna</i> Fish - <i>Oncorhynchus mykiss</i> - Embryo	48 hours 96 hours 48 hours 21 days 30 days
Capillary Storage Solution Glycerol 2-Methyl-2H-isothiazol-3-one	Acute LC50 54000 mg/l Fresh water Acute EC50 0.18 ppm Fresh water Acute LC50 0.07 ppm Fresh water Chronic NOEC 0.044 mg/l Fresh water Chronic NOEC 4.93 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Oncorhynchus mykiss</i> Daphnia Fish	96 hours 48 hours 96 hours 21 days 98 days
P240 Broad Range Ladder Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
10x Protein Labeling Buffer Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water Acute LC50 900 µg/l Marine water Acute LC50 1400 µg/l Fresh water Acute LC50 590 µg/l Fresh water Chronic NOEC 1.25 mg/l Marine water Chronic NOEC 1 mg/l Fresh water Chronic NOEC 3.2 mg/l Fresh water Chronic NOEC 0.8 mg/l Fresh water	Algae - <i>Skeletonema costatum</i> Crustaceans - <i>Artemia salina</i> - Adult Daphnia - <i>Daphnia pulex</i> - Neonate Fish - <i>Cirrhinus mrigala</i> - Larvae Algae - <i>Ulva fasciata</i> - Zoea Crustaceans - <i>Pseudosida ramosa</i> - Neonate Daphnia - <i>Daphnia magna</i> - Neonate Fish - <i>Gambusia holbrooki</i>	96 hours 48 hours 48 hours 96 hours 96 hours 21 days 21 days 28 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Capillary Storage Solution Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
2-Methyl-2H-isothiazol-3-one	301D Ready Biodegradability - Closed Bottle Test	0 % - Not readily - 28 days	-	-
P240 Broad Range Ladder Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
10x Protein Labeling Buffer 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
Capillary Storage Solution 2-Methyl-2H-isothiazol-3-one	-	-	Not readily
10x Protein Labeling Buffer Sodium dodecyl sulphate	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Dye Resuspension DMF N,N-Dimethylformamide	-1.01	0.79	Low
Capillary Storage Solution Glycerol	-1.76	-	Low
2-Methyl-2H-isothiazol-3-one	0.119	-	Low
P240 Broad Range Ladder Glycerol	-1.76	-	Low
10x Protein Labeling Buffer Sodium dodecyl sulphate	-2.03	-	Low

Mobility in soil




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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	UN3316	UN3316	UN3316
UN proper shipping name	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
Transport hazard class(es)	9 	9 	9 
Packing group	III	III	III

Section 14. Transport information

Environmental hazards	No.	No.	No.
------------------------------	-----	-----	-----

Additional information

ADG : **Hazchem code** 2Z
Special provisions 251, 340

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

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

6, 5

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

New Zealand : Not determined.

United States : At least one component is not listed.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 11/01/2024

Date of previous issue : 29/11/2023

Version : 2.1

Section 16. Any other relevant information

Key to abbreviations

: ADG = Australian Dangerous Goods
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
Dye Resuspension DMF FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	On basis of test data On basis of test data On basis of test data
Capillary Storage Solution SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B SKIN SENSITISATION - Category 1	Calculation method Calculation method
P240 Broad Range Ladder SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
10x Protein Labeling Buffer SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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