

Safety Data Sheet

Australia

Section 1. Identification

Product name

High-Range Rainbow™ Molecular Weight Markers, 250 µl

Catalogue Number

RPN756E



Product type

Liquid.

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

Identified uses

Analytical chemistry.
Laboratory chemicals
Scientific research and development

Company details

Manufacturer

Cytiva
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA United Kingdom
+44 1494 508000

Supplier

Global Life Sciences Solutions Australia Pty Ltd
495 Blackburn Road
Mount Waverley VIC 3149
Australia
tfn: 1800 150 522

Emergency telephone number **000** and +61 2 9846 4000

Section 2. Hazard(s) identification

Classification of the substance or mixture SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 32.5%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 35.5%

GHS label elements

Hazard pictograms



Signal word

DANGER

Hazard statements

Causes serious eye damage.
Causes skin irritation.

Precautionary statements

Prevention Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling.

Response IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. 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 physician.

Storage Not applicable.



Disposal	Not applicable.
Supplemental label elements	Not applicable.

Other hazards which do not result in classification	None known.
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Section 3. Composition and ingredient information

Substance/mixture	Mixture
Other means of identification	Not available.

Ingredient name	% (w/w)	Identifiers
glycerol	30	CAS: 56-81-5 EC: 200-289-5
Sodium lauryl sulphate	3	CAS: 151-21-3 EC: 205-788-1
mesna	1.5	CAS: 19767-45-4 EC: 243-285-9

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	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	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	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	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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	Causes serious eye damage.
Inhalation	No known significant effects or critical hazards.
Skin contact	Causes skin irritation.
Ingestion	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	Adverse symptoms may include the following: pain watering redness
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Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	Adverse symptoms may include the following: stomach pains

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

Notes to physician	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	No specific treatment.
Protection of first-aiders	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	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	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.
For emergency responders	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	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

Small spill	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.
Large spill	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.



Section 7. Handling and storage

Precautions for safe handling

Protective measures	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 use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	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.
Conditions for safe storage, including any incompatibilities	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

glycerol

Exposure limits

Safe Work Australia (Australia, 1/2024)

TWA 8 hours: 10 mg/m³.

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.

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

Skin protection

Hand protection

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

Body protection

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

Other skin protection

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

Respiratory protection

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



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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	Liquid.
Colour	Brownish-red.
Odour	Odourless.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	Not available.

Flash point [Product does not sustain combustion.]

	Closed cup				Open cup		
	Ingredient name	°C	°F	Method	°C	°F	Method
sodium dodecyl sulphate					>150	>302	
glycerol					177	350.6	

Burning time Not applicable.

Burning rate Not applicable.

Evaporation rate Not available.

Flammability Not available.

Lower and upper explosive (flammable) limits Not available.

Vapour pressure Not available.

	Vapour Pressure at 20°C			Vapour pressure at 50°C			
	Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
water	17.5	2.3			0	0	
glycerol	0.000075	0.00001					

Relative vapour density Not available.

Relative density Not available.

Solubility(ies)

Media	Result
cold water	Easily soluble
hot water	Easily soluble

Solubility in water Not available.

Partition coefficient: n-octanol/water Not applicable.

Auto-ignition temperature Not available.

Ingredient name	°C	°F	Method
sodium dodecyl sulphate	310.5	590.9	VDI 2263
glycerol	370	698	

Decomposition temperature Not available.

SADT Not available.

Viscosity Not available.

Flow time (ISO 2431) Not available.

Particle characteristics

Median particle size Not applicable.

Section 10. Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid No specific data.

Incompatible materials No specific data.

Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.



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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

glycerol

Result

Rat - Oral - LD50

12600 mg/kg

Toxic effects: Kidney, Ureter, and Bladder - Renal function tests depressed

Sodium lauryl sulphate

Rat - Oral - LD50

1288 mg/kg

mesna

Rat - Oral - LD50

4440 mg/kg

Conclusion/Summary [Product] Not available.

Skin corrosion/irritation

Product/ingredient name

Sodium lauryl sulphate

Result

Human - Skin - Mild irritant

Duration of treatment/exposure: 48 hours

Amount/concentration applied: 5 %

Human - Skin - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 10 %

Guinea pig - Skin - Mild irritant

Duration of treatment/exposure: 336 hours

Amount/concentration applied: 25250 ppm

Guinea pig - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 25250 ppm

Guinea pig - Skin - Severe irritant

Duration of treatment/exposure: 48 hours

Amount/concentration applied: 25250 ppm

Guinea pig - Skin - Severe irritant

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 25250 ppm

Human - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 0.5 %

Human - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 10 ppm

Man - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 %

Mouse - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 %

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 %

Rabbit - Skin - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2.5 %

Mouse - Skin - Severe irritant

Duration of treatment/exposure: 4 hours

Amount/concentration applied: 1 ppm

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 1 hours

Amount/concentration applied: 5 %

Conclusion/Summary [Product] Not available.

Serious eye damage/eye irritation

Product/ingredient name

Sodium lauryl sulphate

Result

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 1 hours

Amount/concentration applied: 5 ppm

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 1 hours

Amount/concentration applied: 1 %

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 1 hours

Amount/concentration applied: 1 %



Conclusion/Summary [Product] Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] Not available.

Respiratory

Conclusion/Summary [Product] Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Sodium lauryl sulphate	-

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact Causes serious eye damage.

Inhalation No known significant effects or critical hazards.

Skin contact Causes skin irritation.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics



Eye contact	Adverse symptoms may include the following: pain watering redness
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	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

Not available.

Conclusion/Summary [Product]	Not available.
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General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Reproductive toxicity	☒ 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)
Rainbow Markers New Formulation - GROUP	35395.7	6764.1	N/A	N/A	N/A
glycerol	12600	N/A	N/A	N/A	N/A
Sodium lauryl sulphate	1288	300	N/A	N/A	N/A
mesna	4440	N/A	N/A	N/A	N/A

Section 12. Ecological information**Toxicity****Product/ingredient name**

☒ Sodium lauryl sulphate

Result**Acute - LC50 - Fresh water**Fish - Carp, hawk fish - *Cirrhinus mrigala* - Larvae

Age: 2 days; Size: 4.5 mm; Weight: 51 mg

590 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Marine waterAlgae - Diatom - *Skeletonema costatum*

1200 µg/l [96 hours]

Effect: Population

Acute - LC50 - Marine waterCrustaceans - Brine shrimp - *Artemia salina* - Adult

Age: 25 days; Size: 3.5 to 4.5 mm

900 µg/l [48 hours]

Effect: Mortality

Chronic - NOEC - Marine waterAlgae - Sea Lettuce - *Ulva fasciata* - Zoa

1.25 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Fresh water

OECD

Crustaceans - Water flea - *Pseudosida ramosa* - Neonate

Age: <24 hours

1 mg/l [21 days]

Effect: Reproduction



Chronic - NOEC - Fresh water
 OECD
 Fish - Eastern mosquitofish - *Gambusia holbrookii*
 Weight: 0.14 g
 0.8 mg/l [28 days]
Effect: Enzymes

Conclusion/Summary[Product] Not available.

Persistence and degradability

Not available.

Conclusion/Summary[Product] Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Glycerol	-	>60%; 28 day(s)	Readily
Sodium lauryl sulphate	-	>60%; 28 day(s)	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
glycerol	-1.76	-	Low
Sodium lauryl sulphate	-2.03	-	Low

Mobility in soil

Soil/water partition coefficient 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	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Proper shipping name	-	-	-	-
Class	-	-	-	-
Label				
PG	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-
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

Not regulated.

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.
United States	Not determined.
Canada inventory	Not determined.
China	Not determined.
Japan	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	All components are listed or exempted.

Section 16. Any other relevant information

History

Date of printing	16 February 2026	Date of previous issue	08 February 2021
Date of issue	16 February 2026	Version	9.01

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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
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1	Calculation method

 Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

