

## SAFETY DATA SHEET

New Zealand

### Section 1. Identification

**Product name** Protein Molecular Weight Standards, 400 µl

**Catalogue Number** RPN5800



**Other means of identification** Not available.

**Product type** Liquid.

**Identified uses**

Analytical chemistry. Laboratory chemicals Research and Development

**Supplier**

GE Healthcare UK Ltd  
Amersham Place  
Little Chalfont  
Buckinghamshire HP7 9NA  
England  
+44 0870 606 1921

GE Healthcare Bio-Sciences  
8 Tangihua Street  
Auckland 1010

**Person who prepared the MSDS :**

msdslifesciences@ge.com

**Emergency telephone number (with hours of operation)**

0800 733 893  
(10am - 7pm)

### Section 2. Hazards identification

**HSNO Classification** 6.3 - SKIN IRRITATION - Category B  
6.4 - EYE IRRITATION - Category A (Mild irritant)

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment:  
50%

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 and has been classified according to the Hazardous Substances (Classifications) Regulations 2001.

**GHS label elements**

**Signal word** Warning

**Hazard statements** Causes mild skin irritation.  
Causes eye irritation.

**Precautionary statements**

**Prevention** Not applicable.

**Response** If skin irritation occurs, get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. Wash hands after handling.

**Storage** Not applicable.

**Disposal** Not applicable.

**Other hazards which do not result in classification** Not available.



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### Section 3. Composition/information on ingredients

|  |                 |
|--|-----------------|
| Substance/mixture                          | Mixture         |
| Other means of identification              | Not available.  |
| <b><u>CAS number/other identifiers</u></b> |                 |
| CAS number                                 | Not applicable. |
| EC number                                  | Mixture.        |
| Product code                               | RPN5800         |

| Ingredient name | %  | CAS number |
|-----------------|----|------------|
| glycerol        | 50 | 56-81-5    |

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

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

### Section 4. First aid measures

#### Description of necessary first aid measures

|              |   |
|--------------|---|
| Inhalation   | If inhaled, remove to fresh air. Get medical attention if symptoms appear.  |
| Ingestion    | Do not ingest. Get medical attention if symptoms appear.  |
| Skin contact | Wash with soap and water. Get medical attention if irritation develops.   |
| Eye contact  | 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. |

#### Most important symptoms/effects, acute and delayed

##### Potential acute health effects

|              |   |
|--------------|---|
| Inhalation   | No known significant effects or critical hazards. |
| Ingestion    | Irritating to mouth, throat and stomach.          |
| Skin contact | Causes mild skin irritation.                      |
| Eye contact  | Causes eye irritation.                            |

##### Over-exposure signs/symptoms

|            |  |
|------------|--|
| Inhalation | No specific data.  |
| Ingestion  | No specific data.  |
| Skin       | Adverse symptoms may include the following:<br>irritation<br>redness                     |
| Eyes       | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |

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

|                            |  |
|----------------------------|--|
| Specific treatments        | Not available.   |
| Notes to physician         | No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.                         |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

#### Extinguishing media

|  |  |
|--|--|
| Suitable                                   | Use an extinguishing agent suitable for the surrounding fire.                                    |
| Not suitable                               | 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:<br>carbon dioxide<br>carbon monoxide |



|   |   |
|---|---|
| <b>Hazchem code</b>                                   | Not available.  |
| <b>Special precautions for fire-fighters</b>          | 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. |
| <b>Special protective equipment for fire-fighters</b> | 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

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).  |
| <b>Environmental precautions</b>   | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).   |
| <b>Methods and materials for containment and cleaning up</b>               |   |
| <b>Small spill</b>   | 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.   |
| <b>Large spill</b>   | Stop leak if without risk. Move containers from spill area. Approach 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 spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. |

## Section 7. Handling and storage

|   |  |
|---|--|
| <b>Precautions for safe handling</b>                                | Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| <b>Conditions for safe storage, including any incompatibilities</b> | Store between the following temperatures: -30 to -15°C (-22 to 5°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.  |

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

|  |   |
|--|---|
| <b>Ingredient name</b>                   | <b>Exposure limits</b>  |
| glycerol                                 | <b>NZ OSH (New Zealand, 1/2002).</b><br>WES-TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Inspirable dust containing no asbestos and less than 1% free silica  |
| <b>Recommended monitoring procedures</b> | If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.  |
| <b>Appropriate engineering controls</b>  | No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.                               |
| <b>Environmental exposure controls</b>   | 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.  |
| <b>Individual protection measures</b>    |   |
| <b>Hygiene measures</b>                  | 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. |
| <b>Respiratory protection</b>            | A respirator is not needed under normal and intended conditions of product use.   |
| <b>Hand protection</b>                   | 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.   |



|                        |   |
|------------------------|---|
| <b>Eye protection</b>  | 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.           |
| <b>Skin protection</b> | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |

## Section 9. Physical and chemical properties

### Appearance

|   |  |
|---|--|
| <b>Physical state</b>                               | Liquid.  |
| <b>Color</b>  | Colorless.   |
| <b>Odor</b>   | Odorless.  |
| <b>Odor threshold</b>                               | Not available.   |
| <b>pH</b>   | Not available.   |
| <b>Melting point</b>                                | Not available.   |
| <b>Boiling point</b>                                | Not available.   |
| <b>Flash point</b>                                  | [Product does not sustain combustion.]                               |
| <b>Burning rate</b>                                 | Not applicable.  |
| <b>Burning time</b>                                 | Not applicable.  |
| <b>Evaporation rate</b>                             | Not available.   |
| <b>Flammability (solid, gas)</b>                    | Not available.   |
| <b>Lower and upper explosive (flammable) limits</b> | Not available.   |
| <b>Vapor pressure</b>                               | Not available.   |
| <b>Vapor density</b>                                | Not available.   |
| <b>Relative density</b>                             | Not available.   |
| <b>Solubility</b>                                   | Easily soluble in the following materials: cold water and hot water. |
| <b>Partition coefficient: n-octanol/water</b>       | Not available.   |
| <b>Auto-ignition temperature</b>                    | Not available.   |
| <b>Decomposition temperature</b>                    | Not available.   |
| <b>SADT</b>   | Not available.   |
| <b>Viscosity</b>                                    | Not available.   |

### Aerosol product

|   |                 |
|---|-----------------|
| <b>Type of aerosol</b>                                | Not applicable. |
| <b>Heat of combustion</b>                             | Not available.  |
| <b>Ignition distance</b>                              | Not applicable. |
| <b>Enclosed space ignition - Time equivalent</b>      | Not applicable. |
| <b>Enclosed space ignition - Deflagration density</b> | Not applicable. |
| <b>Flame height</b>                                   | Not applicable. |
| <b>Flame duration</b>                                 | Not applicable. |

## Section 10. Stability and reactivity

|   |  |
|---|--|
| <b>Chemical stability</b>                 | The product is stable.   |
| <b>Possibility of hazardous reactions</b> | Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| <b>Conditions to avoid</b>                | No specific data.  |
| <b>Incompatible materials</b>             | No specific data.  |
| <b>Hazardous decomposition products</b>   | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |



## Section 11. Toxicological information

### Information on the likely routes of exposure

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | Irritating to mouth, throat and stomach.          |
| <b>Skin contact</b> | Causes mild skin irritation.                      |
| <b>Eye contact</b>  | Causes eye irritation.                            |

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

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | No specific data.  |
| <b>Ingestion</b>    | No specific data.  |
| <b>Skin contact</b> | Adverse symptoms may include the following:<br>irritation<br>redness                     |
| <b>Eye contact</b>  | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |

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

#### Acute toxicity

| Product/ingredient name | Result    | Species | Dose        | Exposure |
|-------------------------|-----------|---------|-------------|----------|
| glycerol                | LD50 Oral | Rat     | 12600 mg/kg | -        |

#### Irritation/Corrosion

| Product/ingredient name | Result               | Species | Score | Exposure | Observation |
|-------------------------|----------------------|---------|-------|----------|-------------|
| glycerol                | Eyes - Mild irritant | Rabbit  | -     | -        | -           |
|                         | Skin - Mild irritant | Rabbit  | -     | -        | -           |

#### Sensitization

Not available.

### Potential chronic health effects

|                              |   |
|------------------------------|---|
| <b>General</b>               | No known significant effects or critical hazards. |
| <b>Inhalation</b>            | No known significant effects or critical hazards. |
| <b>Ingestion</b>             | No known significant effects or critical hazards. |
| <b>Skin contact</b>          | No known significant effects or critical hazards. |
| <b>Eye contact</b>           | No known significant effects or critical hazards. |
| <b>Carcinogenicity</b>       | No known significant effects or critical hazards. |
| <b>Mutagenicity</b>          | No known significant effects or critical hazards. |
| <b>Teratogenicity</b>        | No known significant effects or critical hazards. |
| <b>Developmental effects</b> | No known significant effects or critical hazards. |
| <b>Fertility effects</b>     | No known significant effects or critical hazards. |

#### Chronic toxicity

Not available.

#### Carcinogenicity

Not available.

#### Mutagenicity

Not available.

#### Teratogenicity

Not available.

#### Reproductive toxicity

Not available.

### Specific target organ toxicity



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Not available.

**Aspiration hazard**

Not available.

**Numerical measures of toxicity****Acute toxicity estimates**

Not available.

**Section 12. Ecological information****Ecotoxicity** No known significant effects or critical hazards.**Aquatic and terrestrial toxicity**

| Product/ingredient name | Result                               | Species                            | Exposure |
|-------------------------|--------------------------------------|------------------------------------|----------|
| glycerol                | Acute LC50 54 to 57 ml/L Fresh water | Fish - Oncorhynchus mykiss - 0.9 g | 96 hours |

**Persistence/degradability**

| Product/ingredient name | Aquatic half-life | Photolysis      | Biodegradability |
|-------------------------|-------------------|-----------------|------------------|
| glycerol                | -                 | >60%; 28 day(s) | Readily          |

**Bioaccumulative potential**

Not available.

**Mobility in soil****Soil/water partition coefficient (K<sub>oc</sub>)** 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 minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Section 14. Transport information**

| Regulatory information | UN number      | Proper shipping name | Classes | PG* |
|------------------------|----------------|----------------------|---------|-----|
| New Zealand Class      | Not regulated. | -                    | -       | -   |
| ADG Class              | Not regulated. | -                    | -       | -   |
| UN Class               | Not regulated. | -                    | -       | -   |
| ADR/RID Class          | Not regulated. | -                    | -       | -   |
| IATA Class             | Not regulated. | -                    | -       | -   |
| IMDG Class             | Not regulated. | -                    | -       | -   |

PG\* : Packing group



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## Section 15. Regulatory information

**New Zealand Inventory of Chemicals (NZIoC)** All components are listed or exempted.

**HSNO Approval Number** HSR002596  
**HSNO Group Standard** Laboratory Chemicals and Reagent Kits  
**HSNO Classification** 6.3 - SKIN IRRITATION - Category B  
6.4 - EYE IRRITATION - Category A (Mild irritant)

**Australia inventory (AICS)** All components are listed or exempted.

**Safety, health and environmental regulations specific for the product** No known specific national and/or regional regulations applicable to this product (including its ingredients).

## Section 16. Other information

### History

**Date of printing** 4/15/2011.  
**Date of issue/ Date of revision** 15 April 2011  
**Date of previous issue** No previous validation.  
**Version** 0.9

**Key to abbreviations** ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
UN = United Nations

**References** Not available.

▀ 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.

