

Safety data sheet

SECTION 1: Identification

1.1. Product identifier

Trade name: **R3Charge Pre-stained Protein Ladder**
 Item number: DS1282100S, DS1282100, DS1282106, DS1282110S, DS1282110, DS1282116

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

Recommended uses: For SDS-PAGE protein electrophoresis as a molecular weight marker.

Restrictions on use: For in vitro research use only. Not for diagnostic or therapeutic use. Not a medical device.

1.3. Details of the supplier of the safety data sheet

Supplier: 158 Kallang Way
 #05-10
 Singapore 349245
 Tel: +65 89459141
 Email: sales@darwinscience.com

1.4. Emergency telephone number

+65 89459141 (9am – 6pm, workdays)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification:

Most serious harmful effects: The product shall not be classified as hazardous according to the national classification and labelling rules.
 May cause slight irritation to the skin and eyes.

2.2. Label elements

The product shall not be classified as hazardous according to the national classification and labelling rules.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CAS No. w/w%	Substance Note
	• 100 mM Tris-HCl, pH 8.5
	• 500 mM KCl
	• 30 mM MgCl ₂
	• 1.5% Triton X-100
	• 1000 U of Taq Polymerase

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Seek fresh air.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of persistent discomfort.
Skin:	Remove contaminated clothing. Wash the skin with water.
Eyes:	Flush with water (preferably using eyewash equipment) until irritation subsides. Seek medical advice if symptoms persist.
Other information:	Bring the safety data sheet or label when seeking medical advice

4.2. Most important symptoms and effects, both acute and delayed

May cause slight irritation to the skin and eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms. No special immediate treatment required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited inventory.
Unsuitable extinguishing media	Do not use a jet of water, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

Can generate harmful flue gases containing carbon monoxide in the event of fire.

5.3. Advice for firefighters

Move containers from danger area if it can be done without risk. Avoid inhalation of vapor and smoke gases – seek fresh air. Wear Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Stop leak if this can be done without risk.
For emergency responders:	In addition to the above: Normal protective clothing is recommended.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

6.3. Methods and material for containment and cleaning up

Contain and absorb spills using sand or other absorbent material and transfer to suitable waste containers. Wipe up minor spills with a cloth.

6.4. Reference to other sections

See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Running water and eye wash equipment should be available. Wash hands before breaks, before using restroom facilities, and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

The product should be stored safely, out of reach of children and away from food, animal feed, medicines, etc. Storage temperature: -20°C.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TWA: Time Weighted Average, STEL: Short-Term Exposure Limit.

Legal basis: ACGIH Threshold Limit Values (TLV's) and Biological Exposure Indices (BEI's), 2014. OSHA 29 CFR part 1910.1000, table Z1-Z3, Limits for Air Contaminants 2006.

Contains no substances subject to disclosure requirements.

8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection: Not required.

Personal protective equipment, skin protection: Plastic or rubber gloves recommended.

Personal protective equipment, respiratory protection: Not required.

Environmental exposure controls: Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State:	Liquid
Color:	Dark Blue
Odour:	Odorless
Odour threshold:	No data
pH (solution for use):	No data
pH (concentrate):	No data
Melting point/freezing point:	No data
Initial boiling point and boiling range:	No data
Flash point:	No data
Evaporation rate:	No data
Flammability (solid, gas):	No data
Upper/lower flammability limits:	No data
Upper/lower explosive limits:	No data
Vapor pressure:	No data
Vapour density:	No data
Relative density:	No data
Solubility:	No data
Partition coefficient n-octanol/water:	No data
Auto-ignition temperature:	Not spontaneously flammable
Decomposition temperature:	No data
Viscosity:	No data
Explosive properties:	Non-explosive
Oxidizing properties:	No data

9.2. Other information None.

SECTION 10: Stability and reactivity

10.1. Reactivity	Not reactive.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	None known.
10.4. Conditions to avoid	None known.
10.5. Incompatible materials	None known.
10.6. Hazardous decomposition products	None known..

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral:	Ingestion of large quantities may cause discomfort. The product does not have to be classified. Test data are not available.
Acute toxicity - dermal:	The product does not have to be classified. Test data are not available.
Acute toxicity - inhalation:	The product does not have to be classified. Test data are not available.
Skin corrosion/irritation:	May cause slight irritation. The product does not have to be classified. Test data are not available.
Serious eye damage/eye irritation:	Temporary irritation. The product does not have to be classified. Test data are not available.
Respiratory sensitisation or skin sensitisation:	The product does not have to be classified. Test data are not available.
Germ cell mutagenicity:	The product does not have to be classified. Test data are not available.
Carcinogenic properties:	The product does not have to be classified. Test data are not available.
Reproductive toxicity:	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. The product does not have to be classified. Test data are not available.
Single STOT exposure:	The product does not have to be classified. Test data are not available.
Repeated STOT exposure:	The product does not have to be classified. Test data are not available.
Aspiration hazard:	The product does not have to be classified. Test data are not available.
Other toxicological effects:	None known.

SECTION 12: Ecological information

12.1. Toxicity	The product does not have to be classified. Test data are not available.
12.2. Persistence and degradability	Test data are not available.
12.3. Bioaccumulative potential	Test data are not available.
12.4. Mobility in soil	Test data are not available.
12.5. Results of PBT and vPvB assessment	No assessment has been made.
12.6. Other adverse effects	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods	<p>Avoid discharge to drain or surface water.</p> <p>If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.</p>
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SECTION 14: Transport information

14.1. IATA-DGR	- Not regulated as a dangerous good
14.2. ICAO-DGP	- Not regulated as a dangerous good
14.3. IMDG-Code	- Not regulated as a dangerous good
14.4. UN number	- None
14.5. UN proper shipping name	- None
14.6. Transport hazard class(es)	- None
14.7. Packing group	- None
14.8. Environmental hazards	- None
14.9. Special precautions for user	- None
14.10. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	- Not applicable

SECTION 15: Regulatory information

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

Special provisions: None.

US Federal

TSCA: All ingredients are on the inventory or exempt from listing.

CERCLA: None of the ingredients are on the inventory.

SARA title III Rules

Section 302: None of the ingredients are on the inventory.

Section 311/312 Hazard classes:

Fire Hazard Reactive Hazard Release of Pressure Acute Health Hazard

Chronic Health Hazard

Section 313: None of the ingredients are on the inventory.

NFPA ratings (scale 0 - 4)

Health Hazard: 0

Flammability: 0

Instability: 0

HMIS III ratings (scale 0 - 4)

Health hazard: 0

Flammability: 0

Physical hazard: 0

State regulations

Proposition 65

Chemicals known to cause cancer: None of the ingredients are listed

Chemicals known to cause reproductive toxicity: None of the ingredients are listed

SECTION 16: Other information

Abbreviation explanations: PBT: Persistent, Bioaccumulative and Toxic vPvB: Very Persistent and Very Bioaccumulative STOT: Specific Target Organ Toxicity

Classification method: Calculation based on the hazards of the known components.

Training: A thorough knowledge of this safety data sheet should be a prerequisite condition.

Other information: This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with CFR29, 1910.1200.

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