

**Product name: AccuRuler RGB Plus Prestained Protein Ladder**

Data updated: 01/13/2022

MaestroGen Inc.

3F, No.18, Ln. 568, Niupu E. Rd.,

Xiangshan Dist., Hsinchu 30091, Taiwan

+886-3-5308665

**Catalog number : 02102-250****1. IDENTIFICATION OF THE SUBSTANCE**

Application of the substance For laboratory use  
 the preparation: Suitable for use as molecular weight standards for SDS-PAGE electrophoresis

Manufacturer/Supplier: MaestroGen ,Inc.,  
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**2. COMPOSITION, INFORMATION ON INGREDIENTS**

Water: >50%(v/v)	EC#231-791-2 CAS#7732-18-5
Glycerol: 10-25 % (v/v)	EC#200-289-5 CAS#56-81-5
Sodium Dodecyl Sulfate: 1-3 %	EC#205-788-1 CAS#151-21-3
Urea: 3.5-6.5 M	EC#200-315-5 CAS#57-13-6
Tris- Phosphate: 1-2 %	EC#230-260-2 CAS#6992-39-8

Other components:  
 Components not listed here are not dangerous or their concentrations do not exceed the limits specified in the EU directive 1999/45/EC.  
 Additional information: For the wording of the listed risk phrases refer to section 16.

**3. HAZARDS IDENTIFICATION**

The preparation is not classified as dangerous according to Directive 1999/45/EC or Directive 67/548/EC, and is not labelled with danger symbols or indications of danger.

Hazards deriving from physical-chemical properties:  
 The data available do not support any physical or chemical hazard.

Human health hazards:  
 Inappropriate handling may cause formation of aerosols. Inhalation of aerosols may cause allergic type reactions in sensitized individuals. Prolonged skin contact may cause minor irritation.

Caution: Avoid inhalation, ingestion, and skin contacts.  
 Environmental hazards: The data available do not support any environmental hazard.

**4. FIRST AID MEASURES**

Ingestion:  
 If swallowed, rinse mouth and throat thoroughly with water. Consult a doctor in event of any complaints.

Inhalation:  
 If inhaled, remove victim from area of exposure. If symptoms of irritation or respiratory allergy occur, consult a doctor.

Skin contact:  
 Generally, the product does not irritate the skin. If symptoms of irritation after prolonged exposure occur, consult a doctor.

Eye contact:  
 In case of contact, wash out opened eyes with plenty of water for several minutes. Consult a doctor in event of any complaints.

**5. FIRE FIGHTING MEASURES**

The preparation cannot cause fire.

Suitable extinguishing agents:  
 Water spray, Carbon Dioxide, dry chemical powder or appropriate foam.

Not suitable extinguishing agents: NONE

Special exposure hazards from decomposition products:  
 Not thoroughly investigated.

Protective equipment:  
 Wear self-contained breathing apparatus and protective clothing

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions:  
 Wear appropriate gloves (see Section 8), safety glasses to clean small releases/spillage. In case of vapor/aerosol formation, wear suitable respiratory protection means. Ventilate the area.

Environmental precautions: No special measures required.

Methods for cleaning up:  
 Absorb spillages with liquid-binding material. Ventilate and wash the area after the spillage is completely removed.

Additional information:  
 No dangerous substances are released.

**7. HANDLING AND STORAGE**

Handling: No further requirements.  
 Use appropriate personal protection measures (see Section 8).  
 Avoid any contact with the liquid. Avoid the formation of aerosols.  
 Ventilate area.

Storage:  
 Store at - 20°C.  
 None other specific requirements relating to the preparation.

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

Ingredients with limit values that require monitoring at the workplace:  
 The product does not contain any relevant quantities of materials with critical values that need to be monitored at the workplace.

General protective and hygienic measures:  
 The usual precautionary measures are the same as for chemicals handling.

Engineering measures:  
 None specific requirements relating to the preparation.

Personal protection:  
 - Respiratory protection: No special measures required.  
 - Hand protection: Wear rubber gloves. None special requirements to rubber.  
 - Eye protection: No need to wear glasses (goggles) when ordinary operations

with the preparation. Safety glasses are recommended during certain operations when aerosol formation is possible.  
 - Skin protection: The usual precautionary measures accepted in research laboratories, e.g. protective clothes (gowns).  
 None specific requirements

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Liquid.  
 Color: Colorless.  
 Odor: Odorless.  
 pH-value at 25°C: 8.0.  
 Boiling point: 100°C.  
 Flash Point: Not applicable.  
 Explosive properties: The preparation does not possess explosive properties.  
 Oxidizing properties: Not applicable.  
 Vapor pressure: Not applicable.  
 Relative density at 20°C: ~1 g/cm<sup>3</sup>.  
 Solubility in/miscibility with water: Fully miscible.  
 Fat solubility: Not applicable.  
 Vapor density: Not applicable.  
 Evaporation rate: Not applicable.  
 Conductivity: Not applicable.  
 Viscosity: Not viscous.

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## 10. STABILITY AND REACTIVITY

### Stability:

Stable under storage conditions (see Section 7).

### Conditions to avoid:

No conditions which may cause dangerous reactions.

### Possibility of hazardous reactions:

No dangerous reactions known.

### Materials to avoid:

No materials which may cause dangerous reactions.

### Hazardous decomposition products:

No dangerous decomposition products known.

Hazardous polymerization: Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Routes of exposure:

Inhalation: Inhalation of aerosols may cause allergic type reactions in sensitized individuals.

Ingestion: Repeated ingestion or excessive dosage may cause irritation of the gastrointestinal tract.

Skin and eye contact: Generally, the product does not irritate the skin and eyes. Prolonged skin or eye contact may cause minor irritation.

### Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects.

The product is not listed in a priority list as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of the existing substances.

## 12. Ecological Information

### Ecotoxicity:

The preparation is considered not dangerous to the environment with respect to mobility, persistence and degradability, bioaccumulation, aquatic toxicity and other data relating to ecotoxicity.

### Persistence and degradability:

The preparation is readily biodegradable.

### Bioaccumulative potential:

It is considered that the preparation does not accumulate in biota, and does not pass through the food chain.

Other adverse effects: Not applicable.

## 13. DISPOSAL CONSIDERATIONS

The disposal of the product does not present a danger.

No special disposal methods required, except to be in accordance with current local environmental regulations.

## 14. TRANSPORT INFORMATION

Special precautions: None known.

### Proper shipping name:

Not dangerous goods according to transport regulations.

### National transport regulations:

No additional national transport regulations are known to the supplier.

IMDG: Non-hazardous for sea freight.

ADR: Non-hazardous for road transport.

RID: Non-hazardous for rail transport.

ICAO/IATA: Non-hazardous for air transport.

### Other information:

The preparation may be stored in ice during the transportation.

## 15. REGULATORY INFORMATION

### US:

Labelling according to US Regulations: Caution: Avoid contact and inhalation.

US Regulatory information: SARA LISTED: No.

### EU:

Labelling according to EU Guidelines: The preparation is not dangerous within the meaning of Directives 67/548/EC, 1999/45/EC, and 88/379/ECC, and is not labelled with danger symbols or indications of danger.

### Canada:

WHMIS classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No.

NDSL: No.

## 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. MaestroGen shall not be held liable for any damage resulting from handling or from contact with the above product.