

Identification of the preparation / Substance and of the company

Preparation Name: UNveil Unstained Protein Ladder

Catalog Number: PMU12

Use of the preparation: For laboratory use.

Suitable for use as molecular weight standards for SDS-PAGE.

Company identification: BIO-HELIX Co., LTD.

Site: http://www.bio-helix.com E-mail: info@bio-helix.com

Hazards identification

Classification of the substance or mixture

Classification according to Directive 67/548/EEC or Directive 1999/45/EC: Not applicable.

Information concerning particular hazards for human and environment:

The product does not have to be labeled due to the calculation procedure of international guidelines.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements

Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

Other hazards

Results of PBT and vPvB assessment PBT: Not applicable.

vPvB: Not applicable.





Composition / Information on ingredients

Chemical characterization: Mixtures

Description: Solution, consisting of the following components.

Ingredients:

Glycerol 25-50% EC#200-289-5 CAS#56-81-5

Other components:

Components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

First Aid Measures

Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor.

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed no further relevant information available.

Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: use fire fighting measures that suit the environment.

Special hazards arising from the substance or mixture No further relevant information available.

Advice for firefighters protective equipment: no special measures required.

Accidental release measures

Personal precautions, protective equipment and emergency procedures: Not required.

Environmental precautions: do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections: No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.





Handling and storage

See Section 13 for disposal information.

Precautions for safe handling No special measures required.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s) No further relevant information available.

Exposure controls / personal protection

Control parameters

Components with limit values that require monitoring at the workplace: 56-81-5 glycerol

PEL 15* 5** mg/m³

*total dust **respirable fraction

TLV 10* ppm

*Mist

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed. Breathing

equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Eye protection: Goggles recommended during refilling.





Physical and chemical properties

Appearance: Liquid.

Color : Blue Odor : Odorless

Odour threshold: Not determined.

pH-value: 7.5

Change in condition

Melting point/Melting range : Undetermined. Boiling point/Boiling range : Undetermined.

Flash point : $> 100 \, ^{\circ}\text{C} \, (> 212 \, ^{\circ}\text{F})$

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

 $\label{lem:decomposition} \mbox{Decomposition temperature}: \mbox{Not determined}.$

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.
Upper: Not determined.

Vapor pressure: Not determined.

Density: Not determined.

Relative density Not determined. Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic : Not determined. Kinematic : Not determined.

Other information No further relevant information available.

Stability and reactivity

Reactivity Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. Possibility of hazardous reactions No dangerous reactions known. Conditions to avoid No further relevant information available. Incompatible materials: No further relevant information available.





Toxicological information

Hazardous decomposition products: No dangerous decomposition products known.

Information on toxicological effects acute toxicity:

Primary irritant effect:

on the skin: No irritant effect. on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available. Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

Disposal considerations

Waste treatment methods

Recommendation: Smaller quantities can be disposed of with household waste.

Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.





Transport information

UN-Number	Not regulated
DOT, ADR, ADN, IMDG, IATA	Not regulated
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not regulated
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA	Not regulated
Class	Not regulated
Packing group	Not regulated
DOT, ADR, IMDG, IATA	Not regulated

Regulatory information

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

Sara Section 355 (extremely hazardous substances): None of the ingredients is listed.

Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

SCA (Toxic Substances Control Act):

56-81-5 glycerol

151-21-3 sodium dodecyl sulphate

7732-18-5 water Proposition 65

Chemicals known to cause cancer: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.

Chemicals known to cause developmental toxicity: None of the ingredients is listed.

Cancerogenity categories

EPA (Environmental Protection Agency) None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH) None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients is listed.

Product related hazard information:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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. Bio-Helix Co., Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

