

SECTION 1 – IDENTIFICATION

Product Identifier: ExactPro Broad Range (10-245kDa) Prestained Protein Ladder
Molecular Biology Grade

Catalogue Number: 5150

Recommended use of the chemical and restrictions on use:

Monitoring protein migration during SDS-polyacrylamide gel electrophoresis. Monitoring protein transfer onto membranes after Western blotting. Sizing of proteins on SDS-polyacrylamide gels and Western blots. For R&D use only. Not for pharmaceutical, household or other uses.

Supplier Information:

Axil Scientific Pte Ltd
2 Tukang Innovation Grove
#06-01, JTC MedTech Hub
Singapore 618305

Tel: +65 6775 7318

Email: custcare@axilscientific.com

Apical Scientific Sdn Bhd

No 7-1 to 7-4 Jalan SP 2/7

Taman Serdang Perdana, Seksyen 2
Seri Kembangan 43300

Selangor Darul Ehsan, Malaysia

Tel: +603 8943 3252

Email: custcare@apicalscientific.com

Emergency phone number:

Monday – Friday, 8:00 a.m. to 6:00 p.m.

+65 6775 7318 (Singapore)

+603 8943 3252 (Malaysia)

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification:

Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 2

GHS Hazard Pictogram(s):



Signal Word: Warning

Hazards statements:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

Precautionary statements:

Prevention:

P264: Wash hands and skin thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302 + P352: IF ON SKIN: Wash with soap and water.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do – continue rinsing.

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identity: Glycerol
Synonyms: Glycerin
 1,2,3-propanetriol
 Glycol alcohol
Molecular Formula: C₃H₈O₃
Molecular Weight: 92.09 g/mol

Chemical Identity: Sodium Dodecyl Sulfate
Synonyms: Sodium Lauryl Sulfate
 Lauryl sulfate sodium salt
 SDS
Molecular Formula: C₁₂H₂₅OSO₃Na
Molecular Weight: 288.38 g/mol

Chemical Identity: Urea
Synonyms: Carbamide
 Carbamide resin
 Carbamimidic acid
 Carbonyldiamide
 Isourea
 Pseudourea
Molecular Formula: CH₄N₂O
Molecular Weight: 60.06 g/mol

Chemical Identity: Tris Phosphate
Synonyms: Mono(tris[hydroxymethyl]aminomethane) phosphate
 Tris(hydroxymethyl)aminomethane phosphate
Molecular Formula: C₄H₁₁NO₃·H₃PO₄
Molecular Weight: 219.13 g/mol

Component	Classification	Concentration
Glycerol		
CAS-No. 56-81-5 EC-No. 200-289-5		10 % - 25 %
Sodium Dodecyl Sulfate		
CAS-No. 151-21-3 EC-No. 205-788-1	Flam. Sol. 2; Acute Tox. 4; 2; 1; STOT SE 3; H228, H302, H332, H315, H318, H335 Concentration limits: 10 - < 20 %: Eye Irrit. 2, H319; ≥ 20 %: Eye Dam. 1, H318	1 % - 3 %

Urea		
CAS-No. 57-13-6 EC-No. 200-315-5		≤ 25 %
Tris Phosphate		
CAS-No. 6992-39-8 EC-No. 230-260-2		≤ 2 %

Other Components:

Components of mixture that are not listed are not hazardous to health or the environment within the meaning of GHS, and/or are present below their cut-off levels.

SECTION 4 – FIRST-AID MEASURES

General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Immediately flush eyes with copious amounts of water for at least 15 minutes. Consult a physician.

Skin Contact

Immediately wash skin thoroughly with soap and copious amounts of water. Consult a physician.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration or if breathing is difficult, give oxygen. Consult a physician.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of immediate medical attention and special treatment needed

Data not available.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media

Use water spray, dry chemical powder, carbon dioxide or alcohol-resistant foam.

Special Exposure Hazards

Carbon oxides, nitrogen oxides, sulphur oxides, phosphorous oxides, sodium oxides

Special Fire-fighting Procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Further Information

Data not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment. Prevent skin/eye contact. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Environmental Precautions

Do not allow material into sewers and drainage systems.

Methods for Cleaning Up

Clean up spills immediately, observing precautions in the safety data sheet and label. Dispose into a chemical waste container.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling

Use with adequate ventilation as necessary or desired. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Follow all SDS/ label precautions. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container at -20°C. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8 – EXPOSURE CONTROLS/ PERSONAL PROTECTION

Occupational exposure limits

Component	CAS-No.	Value	Control parameters	Basis
Glycerol	56-81-5	PEL (long-term)	10 mg/m ³	Singapore. Workplace Safety and Health Act – First Schedule Permissible Exposure Limits of Toxic Substances

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

Eye/ Face Protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin/ Hand Protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

a)	Appearance	Blue solution
b)	Odour	Odourless
c)	Odour Threshold	Not available
d)	pH	7.3 – 7.7 (Neat, 25 °C)
e)	Melting/freezing point	Not available
f)	Initial boiling point and boiling range	Not available
g)	Flash point	Not available
h)	Evaporation rate	Not available
i)	Flammability (solid, gas)	Not available
j)	Upper/lower flammability or explosive limits	Not available
k)	Vapour pressure (mm Hg)	Not available
l)	Vapour density	Not available
m)	Relative density	Not available
n)	Water solubility	Completely miscible
o)	Partition coefficient: n-octanol/water	Not available
p)	Autoignition temperature	Not available
q)	Decomposition temperature	Not available
r)	Viscosity	Not available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity

Data not available.

Chemical stability

Data not available.

Possibility of hazardous reactions

Data not available.

Conditions to avoid

Data not available.

Incompatible material

Strong oxidizing agents and strong bases.

Hazardous decomposition products

Data not available.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity

Data not available.

Skin corrosion/irritation

Data not available.

Serious eye damage/eye irritation

Data not available.

Respiratory or skin sensitization

Data not available.

Germ cell mutagenicity

Data not available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Data not available.

Specific target organ toxicity – single exposure

Data not available.

Specific target organ toxicity – repeated exposure

Data not available.

Aspiration hazard

Data not available.

Other information

RTECS: Data not available

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity

Data not available.

Persistence and degradability

Data not available.

Bioaccumulative potential

Data not available.

Mobility in soil

Data not available.

Other adverse effect

Data not available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose off as unused product.

SECTION 14 – TRANSPORT INFORMATION

UN Number

ADR/RID: -

IMDG: -

IATA-DGR: -

UN Proper Shipping Name:

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

Transport Hazard Class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

Packing Group

ADR/RID: -

IMDG: -

IATA-DGR: -

Environmental Hazards

ADR/RID: no

IMDG: marine pollutant: no

IATA-DGR: no

Special Precaution for Users

Data not available

SECTION 15 – REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Data not available

SECTION 16 – OTHER INFORMATION

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. Axil Scientific Pte Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.