

Material Safety Data Sheet

Total Protein Reagent

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Total Protein Reagent.

Catalog Numbers: TD34001, TL34001, TR34021, TR34026, TR34098, TY34001, 1700-250, 1700-500, 1700-1L, 1700-400H, BU3401-BP, UV3401xxxx-BP, VC3401xxxx, VT3401xxxx.

Use: This reagent is intended for the in vitro quantitative determination of Total Protein in human serum or plasma on both manual and automated clinical chemistry systems.

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2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO EU CRITERIA

Hazard Classification: HAZARDOUS SUBSTANCE, DANGEROUS GOODS.

Hazard Category: Corrosive

RISK PHRASES

R34 Causes burns.

SAFETY PHRASES

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

Poison Schedule: S5

This material is a Schedule (S5) Poison and must be stored, handled and used according to the appropriate regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
SODIUM HYDROXIDE	2 - 3 %	1310-73-2
WATER AND OTHER NON HAZARDOUS INGREDIENTS	Balance	Mixture

All other ingredients determined not to be hazardous according to the EU criteria.

4. FIRST AID MEASURES

Swallowed: If swallowed, **DO NOT induce vomiting**. If victim is conscious give glass of water to drink. Immediately transport to hospital or doctor.

Eye: If product enters the eyes, immediately, flush with plenty of water for 15 minutes, ensuring eye lids are held open. Immediately transport to hospital or doctor.

Skin: If product contacts the skin, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation persists transport to hospital or doctor.

Inhaled: Remove victim to fresh air. Apply resuscitation if victim is not breathing.

First Aid Facilities: Eye wash fountain, safety shower and normal wash room facilities.

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4. FIRST AID MEASURES

Advice to Doctor: Treat symptomatically.

In case of poisoning, contact Poisons Information Centre

In Australia call Tel: 131126

In New Zealand Tel: 034747000

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding fire situation.

Hazards from Combustion Products: Decomposes on heating emitting noxious smoke.

Precautions for Fire Fighters and Special Protective Equipment: If safe to do so, move undamaged containers from fire area. Fire fighters to wear Self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.

Hazchem Code: None allocated.

Flammability: This material is not a combustible or flammable liquid.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Keep unnecessary people away; Isolate hazard area and deny entry. If product spills onto floors it will represent a slip hazard, walk cautiously. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS.

Methods and Materials for Containment and Clean Up Procedures:

Dike area using with an absorbent such as diatomaceous earth - to prevent run off into drains and waterways. Throw further absorbent (diatomaceous earth or other inert material) on top of spill. Use non sparking shovel and collect and seal in properly labeled containers for disposal. Remainder of material may be neutralized by cautiously adding vinegar. Collect this material after foaming/effervescence ceases and place into above labeled container.

Warning: Products that contain alkali hydroxides must be kept away from non-ferrous metals, as extremely flammable hydrogen gas will be generated and if the appropriate flammability limits are reached and a source of ignition is present, a violent explosion will occur.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes.

Conditions for Safe Storage

Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. Store away from strong acids, aluminium, zinc and magnesium. Store at 2-25°C and the reagent will be stable until the expiry date stated on the bottle and kit box labels. Keep containers tightly closed, when not using the product. Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

No exposure standards have been assigned by (NOHSC) for this product however, the following exposure standards have been assigned to the following component of the product.

SODIUM HYDROXIDE

(Worksafe Australia)

[TWA] 2 mg/m³

[STEL] Peak limitation

Notices: H

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate unless the material is heated, reacted or otherwise changed in some type of chemical reaction, then the use of a local exhaust ventilation system is recommended.

Personal Protection Equipment

Gloves: Not normally required, however, if product has spilt, or package is broken, then the use of PVC or neoprene gloves is recommended.

Eyes: Chemical glasses or face shield to protect eyes.

Respiratory Protection: Avoid breathing of vapours. The use of a respirator is not normally required, however, if entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended. Select and use respirators in accordance with AS/NZS 1715/1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear blue liquid with no odour
Boiling Point:	Not available
Freezing Point:	Not available
Vapour Pressure:	Not available
Specific Gravity:	Not available
Flash Point:	Not applicable
Flammability Limits:	Not applicable
Solubility in Water:	Completely miscible

Other Properties

pH:	13.5 ± 0.1
Vapor Density (Air = 1):	Not available
Evaporation Rate (BuAc = 1):	Not available
Volatile Organic Compounds:	> 85%

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use.

Conditions to Avoid: Incompatibles, especially reaction with zinc, aluminium or magnesium, which may release flammable hydrogen gas which could be ignited by heat, flames, ignition sources and lead to an explosion.

Incompatible Materials: Strong mineral acids (sulfuric, nitric and hydrochloric), aluminium, zinc and magnesium.

Hazardous Decomposition Products: Decomposes on heating emitting noxious smoke.

Hazardous Reactions: Will not occur.

11. TOXICOLOGICAL INFORMATION

There is no toxicological information available for this product, however, for the ingredient:

Sodium Hydroxide

According to OECD Guideline for the Testing of Chemicals (OECD 405) for eye corrosion and OECD Guideline for the Testing of Chemicals (OECD 404) for skin corrosion, both test procedures have been utilized to determine that sodium hydroxide is a confirmed corrosive substance.

This product contains 2 - 3 % of sodium hydroxide which is considered to be **CORROSIVE** according to Worksafe Australia, we anticipate that this product will cause burns to the eyes and skin.

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11. TOXICOLOGICAL INFORMATION

Acute Health Effects

Swallowed: Will cause burns to the mouth, mucous membranes, throat, oesophagus and stomach. If sufficient quantities (approximately 150 ml) are ingested (swallowed) death may occur.

Eye: Will cause burns to the eyes with effects including: pain, tearing, conjunctivitis, corneal ulcerations and if duration of exposure is long enough, blindness will occur.

Skin: Will cause burns to the skin, with effects including; redness, blistering, localised pain and inflammation.

Inhaled: Will cause irritation to the nose, throat and respiratory system with effects including: dizziness, headache, coughing, and loss of co-ordination and chest pains.

Chronic: Prolonged or repeated skin contact will lead to necrosis (death) of the skin.

12. ECOLOGICAL INFORMATION

No information is available for this product, however, for sodium hydroxide component:

Water Pollution

Persistence: Can persist for extended periods of time.

Effect on water treatment process: Can raise pH and interfere with coagulation.

Avoid contaminating drains, sewers or waterways.

13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Normally suitable for disposal by approved waste disposal agent.

14. TRANSPORT INFORMATION

Road and Rail Transport: Not classified as a Dangerous Good according to the United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the Classification and Labeling of Chemicals.

Marine Transport: Not classified as a Dangerous Good according to the International Maritime Organization Rules (Maritime Dangerous Goods Code - IMDG Code) for transport by sea.

Air Transport: This product is classified as a Dangerous Good according to ICAO/IATA regulations:

UN Number: UN3266.

Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE).

Dangerous Goods Class: 8.

Packing Group: II.

Label: Corrosive (C)

15. REGULATORY INFORMATION

Poison Schedule: S5

This material is a Schedule (S5) Poison and must be stored, handled and used according to the appropriate regulations.

Inventory Status:

Australia (AICS)	Y
United States (TSCA)	Y
Canada (DSL)	Y
Europe (EINECS/ELINCS)	Y

Y = all ingredients are on the inventory.

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16. OTHER INFORMATION

Issue date: January, 2006.

Key Legend Information

NOHSC - National Occupational Health & Safety Commission [Aust]

SUSDP - Standard for the Uniform Scheduling of Drugs and Poisons {Poison Schedule} [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances [Aust]

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

AS/NZS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. [Aust]

AS/NZS 1716 - Respiratory Protective Devices. [Aust]

Hazchem Code - Fire Fighter Designation [Aust]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization [Int]

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods [Int]

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the Classification and Labeling of Chemicals. [Int]

EU - European Union

TSCA - Toxic Substances Control Act [US]

DSL - Domestic Chemical List [Can]

EINECS - European Inventory of Existing Commercial Chemical Substances [Int]

ELINCS - Existing List of Notified Chemical Substances. [Int]

[Aust] = Australia

[Int] = International

[US] = United States of America

[Can] = Canada

Principal References:

Information supplied by manufacturer, reference sources including the public domain.

Disclaimer

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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END OF MSDS