Material Safety Data Sheet

Total Protein Reagent

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Total Protein
Catalogue Numbers: TR34021, TR34026, TR34098, 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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Contact Point

Australia
Quality Assurance Manager:
Tel: +61 3 9790 4100
Mon – Fri 9:00am to 5:00pm

U.S.A
Chemtel
24 Hour Emergency Assistance
1-800-255-3924

2. HAZARD 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: None allocated

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 material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eye lids are held open. Immediately transport to hospital or doctor.

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

4. FIRST AID MEASURES (continued)

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

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

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

Fire/Explosion Hazard
If safe to do so, move undamaged containers from fire area.
Hazardous Decomposition Products: Decomposes on heating emitting noxious smoke.
Fire Fighting Procedures: 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.
Extinguishing Media: Use extinguishing media suitable for surrounding fire situation.

Flammability
This material is not a flammable or combustible liquid.

6. ACCIDENTAL RELEASE MEASURES

Material may be slippery when spilt. Walk cautiously. Ventilate area. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS. Bund area using sand or soil - to prevent run off into drains and waterways. Place absorbent (soil, sand, vermiculite or other inert material) onto spill. 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.

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

No exposure standards are available for this product, however, the following exposure standards have been assigned by the National Occupational Health & Safety Commission (NOHSC) to the following component of the product:

SODIUM HYDROXIDE
(Worksafe Australia)
[TWA] 2 mg/m³
[STEL] Peak limitation
Notices: H

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

EYES: Chemical goggles or glasses 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
% VOLATILES: > 85 %

10. STABILITY AND REACTIVITY

STABILITY:
Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:
Decomposes on heating emitting noxious smoke.

HAZARDOUS POLYMERIZATION:
Will not occur.

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

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 led to an explosion.

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 anticipated that this product will cause burns to the eyes and skin.
Hazard Category:

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.

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11. TOXICOLOGICAL INFORMATION (continued)

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, 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:
Persistency: 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 labelling 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.

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

PROPER SHIPPING NAME: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(SODIUM HYDROXIDE)
UN No: UN3266
CLASS: 8
PACK GROUP: II

15. REGULATORY INFORMATION

Poison Schedule: None allocated.
Inventory Status:

Australia (AICS)	Y
United States (TSCA)	Y
Canada (DSL)	Y
Europe (EINECS/ELINCS)	Y
Japan (MITI)	Y
South Korea (KECL)	Y

Y = all ingredients are on the inventory.

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16. OTHER INFORMATION

Issue date: July, 2004

Reasons for Update:

1. Alignment with the 2nd Edition of National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2001(2003).
2. Changes and /or addition made to all sections.

Key Legend Information:

NOHSC - National Occupational Health & Safety Commission [Aust]
TWA - Time Weighted Average [Int]
STEL - Short Term Exposure Limit [Int]
AICS - Australian Inventory of Chemical Substances
EPA - Environmental Protection Agency [Int]
NIOSH - National Institute for Occupational Safety and Health [US]
AS/NZS 1715 - Selection, use and maintenance of respiratory protectice devices. [Aust]
AS/NZS 1716 - Respiratory protective devices. [Aust]
IATA - International Aviation Transport Authority [Int]
ICAO - International Civil Aviation Organization
IM IMDG - International Maritime Dangerous Goods

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. [Int]
EU - European Union

[Aust/NZ] = Australian/New Zealand
[Int] = International
[US] = United States of America

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.
Our responsibility for products sold is subject to our standard terms and conditions which are available on request.

END OF MSDS