SAFETY DATA SHEET

Doc. ID: 442740-75 AH
Revised (year/month/day) 2013/04/22

Section 1 Identification of the Substance/mixture and of the Company/undertaking

1.1 Product Identifier

Product Name Total Protein Reagent

Part Number 442740

Series Name SYNCHRON® Systems

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product Use For In Vitro Diagnostic Use. See product literature for details.

1.3 Details of supplier of the safety data sheet

Manufacturer	**EC REP Address**
Beckman Coulter, Inc. 250 S. Kraemer Blvd Brea, CA 92821, U.S.A. Tel: 800-854-3633	Beckman Coulter Ireland Inc. Mervue Business Park Mervue, Galway, Ireland Tel: 353 91 774068

e-mail address SDSNT@beckman.com

1.4 Emergency telephone number

Telephone number (24H) Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887

Distributor and Emergency Phone No.

Refer to attached list, Document ID: 472050, for local distributor and emergency phone numbers.

Section 2 Hazards Identification

2.1 Classification of substance or mixture

Product Description Mixture

Blue; Transparent; Liquid; Odorless

Classification according to EC Directives 1999/45/EC and 67/548/EEC

C;R35

US OSHA Hazardous

WHMIS Exempt

Potential Health Effects Summary May cause burns to the eyes, skin, respiratory tract and gastrointestinal tract. Corrosive effects may be delayed.

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Section 2 Hazards Identification (Continued)

2.2 Label Elements

According to EC Directives (1999/45/EC and 67/548 EEC)

Corrosive

C



Risk and Safety Phrases

R35 Causes severe burns.

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

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazard

None identified.

See Section 11 Toxicological Information for more detailed health information.

Section 3 Composition and Information on Ingredients

3.2 Mixture

Hazardous Ingredients:		Hazard Classification of Pure Ingredients				
Chemical Name	**% by wt.**	**EU-67/548/EEC**	**EU 1272/2008 CLP/GHS**	**US OSHA**	**WHMIS**	
Potassium Hydroxide CAS # 1310-58-3 EINECS # 215-181-3 Index # 019-002-00-8	< 2	C;R22-35	Acute Tox. Oral 4 Aquatic Acute 3 Eye Dam. 1 Skin Corr. 1A H302; H314; H318; H402	Water-Reactive Corrosive Toxic	D1B; E	

See section 8 for available Occupational exposure limits
See Section 15 for additional regulatory information
See Section 16 for hazard class, hazard statements and risk phrase description

Section 4 First Aid Measures

4.1 Description of first aid measures

Inhalation If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

Eye Contact If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.

Skin Contact In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If pain or irritation occur, obtain medical attention.

Ingestion If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 Toxicological Information for more detailed health information.

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Section 4 First Aid Measures (Continued)

4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

Section 5 Fire Fighting Measures

Flammable Properties Nonflammable aqueous solution.

5.1 Extinguishing Media Use extinguishing media suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture

Special Fire and Explosion Hazards

None identified.

Hazardous Combustion Products

No combustion products posing significant hazards are expected from this product (a dilute aqueous solution).

5.3 Advice for fire fighters

Protective Equipment Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

5.4 Additional information None

Section 6 Accidental Release Measures

6.1 Personal precaution, protective equipment and emergency procedures

Personal Precautions Avoid inhaling, ingesting, and contact with eyes and skin.

6.2 Environmental Precautions Contain spill to prevent migration.

6.3 Methods and material for containment and cleaning up

Spill and Leak Procedures Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

6.4 Reference to other sections Refer sections 8 and 13.

Section 7 Handling and Storage

7.1 Precautions for safe handling Avoid inhaling, ingesting, and contact with eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from incompatible material (see Section 10).

To maintain efficacy, store according to the instructions in the product labeling.

7.3 Specific end uses No data available.

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Section 8 Exposure Controls and Personal Protection

8.1 Control parameters

Exposure Limits

US OSHA	None established
ACGIH	
Potassium Hydroxide CAS # 1310-58-3	2 mg/m3 Ceiling
DFG MAK	None established
Ireland	
Potassium Hydroxide CAS # 1310-58-3	2 mg/m3 STEL
NIOSH	None established
Japan	None established

8.2 Exposure controls

Engineering Controls	Use in well ventilated area.
Eye Protection	Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.
Skin Protection	Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.
Respiratory Protection	Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid	**Specific Gravity (Water=1.0)**	≈1.0137 @20°C
Color	Blue	**Solubility**	
Transparency	Transparent	**Water**	Miscible
Odor	Odorless	**Organic**	Not determined
pH	12.9 - 13.3	**Coefficient of Water/Oil Distribution**	Not determined
Freezing Point	Not determined	**Autoignition Temp.**	Not applicable
Boiling Point	Not determined	**Decomposition Temperature**	Not determined

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Section 9 Physical and Chemical Properties (Continued)

Flash Point	Not applicable	**Percent Volatiles**	Not applicable
Evaporation Rate	Not determined	**Vapor Pressure**	Not determined
Flammability (Solid, Gas)	Not applicable	**Viscosity**	Not determined
Flammable Limits	Not determined	**Explosive Properties**	Not applicable
Vapor Density	Not determined	**Oxidizing Properties**	Not determined
Odor Threshold	Not applicable		

9.2 Other Information None

Section 10 Stability and Reactivity

10.1 Reactivity No data available.

10.2 Chemical Stability Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to Avoid Avoid contact with incompatible materials.

10.5 Incompatible materials

Strong acids
Strong bases
Strong oxidizers

10.6 Hazardous Decomposition Products

No decomposition products posing significant hazards would be expected from this product (a dilute aqueous solution).

Section 11 Toxicological Information

11.1 Information on toxicological effects

Toxicity Data for Hazardous Ingredients

Potassium Hydroxide
CAS # 1310-58-3 — Oral LD50 Rat 214 mg/kg

Primary Routes of Exposure Eye contact, ingestion, inhalation, and skin contact.

Carcinogenicity No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

Potential Effects of Acute Exposure

Inhalation of dilute alkaline mists may result in irritation of mucous membranes with sore throat, coughing, difficulty in breathing; intense exposure, the lungs may fill with fluid. Contact with dilute solutions may cause irritation or skin injury with redness, fissures and white patches. Eye contact may result in severe burns with possible loss of sight, irritation of eyes and eyelids, pain and intense watering. Ingestion may result in burns to the mouth, throat and stomach with burning sensations in the mouth, abdominal pain, vomiting, diarrhea, shock and loss of consciousness.

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Section 11 Toxicological Information (Continued)

Potential Effects of Chronic Exposure

Repeated skin contact with dilute alkaline may cause irritation with redness and swelling or burns. Repeated eye contact may cause conjunctivitis with redness, swelling and watering or burns. Depending upon concentration, repeated ingestion may result in inflammatory or ulcerative effects on the mouth with redness, swelling and sores in the mouth.

Symptoms of Overexposure Symptoms may include: coughing, headache, fatigue, nausea, vomiting, dizziness, blurred vision, red and watery eyes, abdominal pain and unconsciousness.

Conditions Aggravated by Exposure

Individuals with eye, skin or kidney disorders may find these conditions aggravated by exposure to this product.

Other Information None identified.

Section 12 Ecological Information

12.1 Ecotoxicity

Fresh Water Species

Potassium Hydroxide CAS # 1310-58-3	96 h LC50 Gambusia affinis: 80 mg/L [static]
Microtox	No information available.
Water Flea	No information available.
Fresh Water Algae	No information available.

12.2 Persistence and degradability No information available.

12.3 Bioaccumulation No information available.

12.4 Mobility in soil No information available.

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other Adverse Effects No information available.

Section 13 Disposal Considerations

13.1 Waste treatment methods

Product Waste Disposal This product contains a low level (<1%) of Copper. Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

13.2 Additional information None

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Section 14 Transport Information

	Shipping Information	IATA	IMDG	US DOT	European ADR	Canadian TDG
14.1	UN/ID Number	1814	1814	1814	1814	PIN - 1814
14.2	Shipping Name	Potassium Hydroxide Solution				
14.3	Hazard Class	8 Corrosives	8 Corrosive substances	8 Corrosive material	8 Corrosive substances	8 Corrosives
	Subsidiary Risk	None	None	None	None	None
	Classification Code	Not applicable	Not applicable	Not applicable	C5	Not applicable
14.4	Packing Group	III	III	III	III	III
	Special Provisions	Not applicable	Not applicable	Not applicable	None	None
	Additional information					
	IATA ERG Code	8L	Not applicable	Not applicable	Not applicable	Not applicable
	EmS	Not applicable	F-A, S-B	Not applicable	Not applicable	Not applicable
	NAERG Code	Not applicable	Not applicable	154	Not applicable	154
14.5	Environmental Hazard					
	Marine Pollutant	Not applicable	No	Not applicable	Not applicable	Not applicable

14.6 Special Precautions for users

None

Section 15 Regulatory Information

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

US Federal and State Regulations

SARA 313
Cupric Sulfate, Pentahydrate is subject to reporting requirements of Section 313, Title III of SARA.

CERCLA RG's, 40 CFR 302.4
Potassium Hydroxide is listed.
Cupric Sulfate, Pentahydrate is listed.

California Proposition 65
No ingredients listed.

Massachusetts MSL
Potassium Hydroxide is listed.
Cupric Sulfate, Pentahydrate is listed.

New Jersey Dept. of Health RTK List

Potassium Hydroxide is listed.
Cupric Sulfate, Pentahydrate is listed.

Pennsylvania RTK
Potassium Hydroxide is listed.
Cupric Sulfate, Pentahydrate is listed.

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Section 15 Regulatory Information (Continued)

EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

Water Hazard Class (Germany) WGK 1, low water endangering

REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.

No ingredients listed.

Canada

This product is exempt from WHMIS label and SDS requirements.

PIN 1814

Ingredients on Ingredient Disclosure List

Potassium Hydroxide
Potassium Iodide

Ingredients with unknown toxicological properties

Product is exempt

15.2 Chemical Safety Assessment Not available

Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.

Section 16 Other Information

Beckman Coulter Safety Rating	**Flammability: 0** **Health: 3** **Reactivity with Water: 0** **Contact: 3**	Code 0=None 1=Slight 2=Caution 3=Severe

Revision Changes Revised per 453/2010 EC and ANSI Z400.1-2004 Standard.

Hazard Class, hazard statements and risk phrase description from section 3

C - Corrosive
R22 Harmful if swallowed.
R35 Causes severe burns.
D1B - Poisonous and Infections Material: Division 1 - Immediate and Serious Toxic Effects: Toxic (Acute Oral Toxicity)
E - Corrosive Material
E - TDG Class 8 - corrosive substance
Aquatic Acute 3 - Aquatic Hazard Acute, Category 3
Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4
Eye Dam. 1 - Eye Damage Category 1
Skin Corr. 1A - Skin Corrosion Category 1A
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H402 - Harmful to aquatic life

For further information, please contact your local Beckman Coulter representative.

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