

Total Protein Plus

Date 1.8.2007

Previous date: -

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**1.1 Identification of the article****1.1.1 Commercial Product Name**

Total Protein Plus

1.1.2 Product code

981826, 981827

1.2 Use of the Substance/Preparation**1.2.1 Expressed in writing**

In vitro diagnostic reagent for the clinical chemistry analyser.

1.3 Identification of the substance/preparation and the company/undertaking**1.3.1 Supplier**

Thermo Fisher Scientific Oy, Clinical Diagnostics Finland

1.3.2 Contact information:

Ratastie 2, P.O.Box 100
FI-01621 Vantaa
FINLAND
+358-9-329 100
+358-9-3291 0300
FI09215470

2. COMPOSITION/INFORMATION ON INGREDIENTS**2.1 Hazardous components**

2.1.1 CAS number or other code	2.1.2 Chemical name of the substance	2.1.3 Concentration	2.1.4 Classification
1310-73-2	Sodium hydroxide	4.2 %	C; R35
7758-99-8	Copper sulphate x 5 H ₂ O	0.23 %	X, N; R22-36/38-50/53
6381-92-6	EDTA Na ₂	1.0 %	X; R22-36/37/38

3. HAZARDS IDENTIFICATION

Causes burns.

4. FIRST AID MEASURES**4.1 Additional advice**

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

4.2 Inhalation

Move to fresh air.

Oxygen or artificial respiration if needed.

4.3 Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

4.4 Eye contact

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

Keep eye wide open while rinsing.

4.5 Ingestion

If swallowed, seek medical advice immediately and show this container or label. Drink 1 or 2 glasses of water.

Do NOT induce vomiting.

Total Protein Plus

Date 1.8.2007

Previous date: -

5. FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media**
halons, carbon dioxide (CO₂), foam, water
- 5.3 Specific hazards**
Fire may cause produce fumes hazardous to health.
- 5.4 Special protective equipment for firefighters**
Flame-resistant clothing or complete suit protecting against chemicals and respirator.
- 5.5 Specific methods**
The product itself does not burn.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions**
Ensure adequate ventilation.
Use personal protective equipment.
- 6.2 Environmental precautions**
Do not flush into surface water or sanitary sewer system.
- 6.3 Methods for cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste.

7. HANDLING AND STORAGE

- 7.1 Handling**
Avoid contact with skin and eyes. Wear personal protective equipment.
- 7.2 Storage**
Must be stored away from acids, metals, organic peroxides and easily flammable materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Exposure Limit Values**
- 8.1.1 HTP values**
- | | | |
|-----------|--------------------------------------|------------------------------|
| 1310-73-2 | Sodium hydroxide | 2 mg/m ³ (8 h) |
| 7758-99-8 | Copper sulphate x 5 H ₂ O | 1 mg/m ³ (8 h) Cu |
- 8.2 Exposure controls**
- 8.2.1 Occupational exposure controls**
Wear protective gloves.
- 8.2.1.1 Respiratory protection**
No personal respiratory protective equipment normally required.
- 8.2.1.2 Hand protection**
impervious butyl rubber gloves, nitrile rubber/ neoprene gloves, PVC or other plastic material gloves
- 8.2.1.3 Eye protection**
Face-shield, if there is a risk of spashing. Do not use contact lenses, if there is a risk of splashing into the eyes.
- 8.2.1.4 Skin and body protection**
Lab coat, rubber or plastic apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 General Information (appearance, odour)**
blue, odourless liquid
- 9.2 Important Health Safety and Environmental Information**
- 9.2.1 pH** 13

Total Protein Plus

Date 1.8.2007

Previous date: -

9.2.2	Boiling point/range	110-115°C
9.2.3	Flash point	Does not burn.
9.2.4	Flammability (solid, gas)	does not ignite, but does not support combustion
9.2.5	Explosive properties	
9.2.5.1	Lower explosion limit	-
9.2.5.2	Upper explosion limit	-
9.2.7	Vapour pressure	-
9.2.8	Relative density	~ 1040 kg/m ³
9.2.9	Solubility	
9.2.9.1	Water solubility	completely soluble
9.2.9.2	Fat solubility (solvent - oil to be specified)	-
9.2.10	Partition coefficient (n-octanol/water)	Too low to be determined.

10. STABILITY AND REACTIVITY

- 10.1 Conditions to avoid**
Must not be stored in the heat or near hot objects.
- 10.2 Materials to avoid**
acids, metals, organic materials, combustible material
- 10.3 Hazardous decomposition products**
Thermal decomposition can lead to release of irritating gases and vapours.
Hydrogen, by reaction with metals.

11. TOXICOLOGICAL INFORMATION

- 11.1 Acute toxicity**
-
- 11.2 Primary irritation**
According to concentration, aqueous solution causes irritation or burns of eyes, skin and mucous membranes.
- 11.4 Subacute, subchronic and prolonged toxicity**
Prolonged skin contact may defat the skin and produce dermatitis.
- 11.5 Human experience**
Swallowing is followed by pain in the stomach, swelling of lips, tongue, mouth and throat, difficulties in swallowing, increase in pulse rate, hypotony.
Splashing in the eyes may cause swelling and gangrene of conjunctiva and cornea, the cornea getting opaque, swelling and light sensitive.
Skin corrosion/irritation

12. ECOLOGICAL INFORMATION

- 12.1 Ecotoxicity**
- 12.1.1 Aquatic toxicity**

Total Protein Plus

Date 1.8.2007

Previous date: -

Sodium hydroxide:

20 - 100 mg/l of sodium hydroxide in water may kill some water organisms by raising the pH.

Fish: LC₅₀ = 33 - 100 mg/l, 48 h

copper sulphate:

Information for anhydrous copper sulphate.

Fish: LC₅₀ = 0.1 - 2.5 mg/l, 96 h; very toxicWater flea: EC₅₀=0.024 mg/l, 48 h; very toxic

EDTA:

Fish: LC₅₀=159 mg/l, 96 h**12.2 Mobility**

Sodium hydroxide:

Highly soluble in water, diffuses in the environment with water.

12.3 Persistence and degradability**12.3.1 Biodegradation**

-

12.3.2 Chemical degradation

Sodium hydroxide:

hydrolyses in water.

12.4 Bioaccumulative potential

Does not accumulate in organisms.

13. DISPOSAL CONSIDERATIONS

The product has to be disposed of as laboratory chemical in accordance with local regulations.

14. TRANSPORT INFORMATION

14.1	UN-No	UN1824
14.2	Packaging group	III
14.3	Land transport	
14.3.1	Class	8
14.3.2	Risk No.	-
14.3.3	Description of the goods	Sodium hydroxide
14.3.4	Further Information	-
14.4	Sea transport	
14.4.1	IMDG	8/III UN 1824
14.4.2	Proper shipping name	Sodium hydroxide solution
14.5	Air transport	
14.5.1	ICAO/IATA	8 UN 1824
14.5.2	Proper shipping name	Sodium hydroxide solution

15. REGULATORY INFORMATION**15.1 Information on the warning label****EC Label**

215-185-5

15.1.1 Letter code of the warning symbol and indications of danger for the preparation

C

Corrosive

Total Protein Plus

Date 1.8.2007

Previous date: -

15.1.2 Names of the ingredients given on the warning label

Sodium hydroxide

15.1.3 R-phrases

R34 Causes burns.

15.1.4 S-phrases

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

S37/39 Wear suitable gloves and eye/face protection.

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

16. OTHER INFORMATION**16.1 List of the relevant R phrases**

R35 Causes severe burns.

R34 Causes burns.

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

R36/37/38 Irritating to eyes, respiratory system and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.4 Additional information available from:

Code of the Material Safety Data Sheet: D06188-02-01-MSDS-Total Protein Plus-EN

Corporation mentioned in point 1.3.

The information in this datasheet is to our best knowledge correct and complete, and is offered in good faith as accurate. It characterizes the product with regard to the appropriate safety precautions. It does not guarantee properties of the product.

16.5 Literary reference

The MSDS of the manufacturer.

This product has been evaluated in accordance with the directives 1967/548/EEC, 1999/45/EC and 2001/58/EC. IATA Dangerous Goods Regulations

Date

01.08.2007

Signature

LMKo