

**Total protein FS Reagent R2**

Material number 1 2311 R2

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

Trade name: Total protein FS Reagent R2  
As part of the kits: 1 2311 XX XX XXX  
(The positions X code different packages.)

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

General use: Reagent for in-vitro diagnostics in human samples  
For professional use only

**1.3 Details of the supplier of the safety data sheet**

Company name: DiaSys Diagnostic Systems GmbH  
Street/POB-No.: Alte Strasse 9  
Postal Code, city: 65558 Holzheim  
WWW: <http://www.diasys.de>  
E-mail: [mail@diasys.de](mailto:mail@diasys.de)  
Telephone: +49 (0) 6432-9146-0  
Telefax: +49 (0) 6432-9146-32  
Department responsible for information:  
Corporate headquarters, Telephone: +49 (0) 6432-9146-0, Email: [mail@diasys.de](mailto:mail@diasys.de)

**1.4 Emergency telephone number**

Infraserv, Telephone: +49 (0) 69-305-6418

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to EC regulation 1272/2008 (CLP)**

Met. Corr. 1; H290 May be corrosive to metals.  
Skin Irrit. 2; H315 Causes skin irritation.  
Eye Irrit. 2; H319 Causes serious eye irritation.  
Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

**2.2 Label elements**

**Labelling (CLP)**



Signal word:

**Warning**

Hazard statements: H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

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### Precautionary Statements:

P234	Keep only in original packaging.
P264	Wash hands and face thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.

### 2.3 Other hazards

A corrosive effect cannot be ruled out because of the pH value.

### Results of PBT and vPvB assessment:

No data available

## SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterisation: Aqueous solution

Hazardous ingredients:

Ingredient	Designation	Content	Classification
REACH 01-2119457892-27-xxxx EC No. 215-185-5 CAS 1310-73-2	Sodium hydroxide	0.5 - 2 %	Met. Corr. 1; H290. Skin Corr. 1A; H314.
EC No. 231-659-4 CAS 7681-11-0	Potassium iodide	< 2 %	Acute Tox. 4; H302. Skin Irrit. 2; H315. Eye Irrit. 2; H319.
EC No. 231-847-6 CAS 7758-99-8	Copper sulphate-5-hydrate	< 1 %	Acute Tox. 4; H302. Eye Dam. 1; H318. Aquatic Acute 1; H400. Aquatic Chronic 1; H410.

Full text of H- and EUH-statements: see section 16.

Additional information: Information about Copper sulphate-5-hydrate: M-factor acute =10

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand.
In case of inhalation:	Move victim to fresh air, put at rest and loosen restrictive clothing. Seek medical aid in case of troubles.
Following skin contact:	Take off immediately all contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water. Cover with sterile dressing material to protect against infection. Seek medical attention.

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After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.

After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Risk of perforation! Do not try to neutralize. Seek medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation. Causes serious eye irritation.  
A corrosive effect cannot be ruled out because of the pH value. May cause respiratory irritation. In case of ingestion: Irritant up to corrosive.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

### 5.2 Special hazards arising from the substance or mixture

Fires in the immediate vicinity may cause the development of dangerous vapours. In the event of a fire, the following may be produced when the water evaporates: Sodium compounds, copper oxide, hydrogen iodide, sulphur oxides, carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:

In case of surrounding fires: Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: 2R

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Take off immediately all contaminated clothing and wash it before reuse.

Wear appropriate protective equipment. Provide adequate ventilation. Do not breathe vapours.

### 6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.

If necessary notify appropriate authorities.

### 6.3 Methods and material for containment and cleaning up

Absorb spillage to prevent material damage. Dilute with plenty of water.

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance. Final cleaning.

Never return spills in original containers for re-use.

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**6.4 Reference to other sections**

Refer additionally to section 8 and 13.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe vapours. Avoid contact with skin and eyes. Take off immediately all contaminated clothing and wash it before reuse. Wear appropriate protective equipment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.  
Have eye wash bottle or eye rinse ready at work place.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storerooms and containers:

Keep containers tightly closed and at a temperature between 2 °C and 25 °C.  
Protect from light. Keep away from heat. Store containers in upright position.  
Unsuitable materials: Metals, light metals.

Hints on joint storage:

Do not store together with ammonium compounds or acids.  
Keep away from food, drink and animal feedingstuffs.

**7.3 Specific end use(s)**

No information available.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
1310-73-2	Sodium hydroxide	Great Britain: WEL-STEL Ireland: 15 minutes	2 mg/m <sup>3</sup> 2 mg/m <sup>3</sup>
7758-99-8	Copper sulphate-5-hydrate	Great Britain: WEL-STEL  Great Britain: WEL-TWA Great Britain: WEL-TWA  Ireland: 15 minutes  Ireland: 8 hours Ireland: 8 hours	2 mg/m <sup>3</sup> (Dusts and mist calculated as Cu) 0.2 mg/m <sup>3</sup> (Smoke) 1 mg/m <sup>3</sup> (Dusts and mist calculated as Cu) 2 mg/m <sup>3</sup> (Dusts and mist calculated as Cu) 0.2 mg/m <sup>3</sup> (Smoke) 1 mg/m <sup>3</sup> (Dusts and mist calculated as Cu)

**8.2 Exposure controls**

When aerosols and vapours form: Withdraw by suction.

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### Personal protection equipment

#### Occupational exposure controls

- Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type (P2/P3) according to EN 14387.
- Hand protection: Protective gloves according to EN 374.  
Glove material: Nitrile rubber - Layer thickness: 0.11 mm.  
Breakthrough time: > 480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed goggles according to EN 166.
- Body protection: Wear suitable protective clothing.
- General protection and hygiene measures:  
Do not breathe vapours. Do not get in eyes, on skin, or on clothing. Take off immediately all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Have eye wash bottle or eye rinse ready at work place. Wash hands before breaks and after work.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance: Physical state at 20 °C and 101.3 kPa: liquid  
Colour: blue, clear
- Odour: odourless
- Odour threshold: No data available
- pH value: at 25 °C: 13.27
- Melting point/freezing point: No data available
- Initial boiling point and boiling range: No data available
- Flash point/flash point range: not combustible
- Evaporation rate: No data available
- Flammability: No data available
- Explosion limits: No data available
- Vapour pressure: No data available
- Vapour density: No data available
- Density: at 20 °C: 1.0454 g/mL
- Water solubility: at 20 °C: completely miscible
- Partition coefficient: n-octanol/water: No data available
- Auto-ignition temperature: No data available
- Decomposition temperature: No data available
- Viscosity, kinematic: No data available
- Explosive properties: No data available
- Oxidizing characteristics: No data available

### 9.2 Other information

- Additional information: No data available

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**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

May be corrosive to metals.  
Reacts violently with metals and light metals. Formation of hydrogen!

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Reacts with ammonium compounds: Formation of ammonia.

**10.4 Conditions to avoid**

Keep away from heat.

**10.5 Incompatible materials**

Acids

**10.6 Hazardous decomposition products**

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.

Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

**Symptoms**

A corrosive effect cannot be ruled out because of the pH value. May cause respiratory irritation. In case of ingestion: Irritant up to corrosive.



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830

Revision date: 23/1/2019  
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### SECTION 12: Ecological information

#### 12.1 Toxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.  
Harmful effects on water organisms by modification of pH-value.

#### 12.2 Persistence and degradability

Further details: Methods for the determination of biodegradability are not applicable to inorganic substances.

#### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:  
No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

No data available

#### 12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Waste key number: 06 03 13\* = Solid salts and solutions containing heavy metals.  
\* = Evidence for disposal must be provided.

Recommendation: Special waste. Dispose of waste according to applicable legislation.

##### Contaminated packaging

Waste key number: 15 01 02 = Plastic packaging  
Recommendation: Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID, IMDG, IATA-DGR:  
UN 1824

#### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:  
UN 1824, SODIUM HYDROXIDE SOLUTION

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**14.3 Transport hazard class(es)**

ADR/RID: Class 8, Code: C5  
IMDG: Class 8, Subrisk -  
IATA-DGR: Class 8



**14.4 Packing group**

ADR/RID, IMDG, IATA-DGR:  
III

**14.5 Environmental hazards**

Marine pollutant: no

**14.6 Special precautions for user**

**Land transport (ADR/RID)**

Warning board: ADR/RID: Kemmler-number 80, UN number UN 1824  
Hazard label: 8  
Limited quantities: 5 L  
EQ: E1  
Contaminated packaging - Instructions: P001 IBC03 LP01 R001  
Special provisions for packing together: MP19  
Portable tanks - Instructions: T4  
Portable tanks - Special provisions: TP1  
Tank coding: L4BN  
Tunnel restriction code: E

**Sea transport (IMDG)**

EmS: F-A, S-B  
Special provisions: 223  
Limited quantities: 5 L  
Excepted quantities: E1  
Contaminated packaging - Instructions: P001, LP01  
Contaminated packaging - Provisions: -  
IBC - Instructions: IBC03  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T4  
Tank instructions - Provisions: TP1  
Stowage and handling: Category A.  
Segregation: SG35  
Properties and observations: Colourless liquid. Corrosive to aluminium, zinc and tin. Reacts with ammonium salts, evolving ammonia gas. Causes burns to skin, eyes and mucous membranes. Reacts violently with acids.  
Segregation group: 18

**Air transport (IATA)**

Hazard label: Corrosive  
Excepted Quantity Code: E1  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L  
Passenger and Cargo Aircraft: Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L  
Cargo Aircraft only: Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L  
Special provisions: A3 A803  
Emergency Response Guide-Code (ERG): 8L





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### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

## SECTION 15: Regulatory information

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

#### National regulations - Great Britain

Hazchem-Code: 2R  
No data available

#### National regulations - EC member states

Further regulations, limitations and legal requirements:  
Use restriction according to REACH annex XVII, no.: 3

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Further information

Wording of the H-phrases under paragraph 2 and 3:

H290 = May be corrosive to metals.  
H302 = Harmful if swallowed.  
H314 = Causes severe skin burns and eye damage.  
H315 = Causes skin irritation.  
H318 = Causes serious eye damage.  
H319 = Causes serious eye irritation.  
H400 = Very toxic to aquatic life.  
H410 = Very toxic to aquatic life with long lasting effects.  
H412 = Harmful to aquatic life with long lasting effects.

Reason of change: ADR/RID 2019  
Date of first version: 30/11/2006

### Department issuing data sheet

Contact person: see section 1: Department responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.