

## Total protein FS Reagent R1

Material number 1 2311 R1

Page: 1 of 7

### 1. Product and company identification

#### Product identifier

Trade name: Total protein FS Reagent R1  
As part of the kits: 1 2311 XX XX XXX  
(The positions X code different packages.)

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

General use: Reagent for in-vitro diagnostic use  
For professional use only

#### 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  
Dept. responsible for information:  
Corporate headquarters, Telephone: +49 (0) 6432-9146-0, Email: [mail@diasys.de](mailto:mail@diasys.de)

#### Emergency phone number

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

### 2. Hazards identification

#### Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: liquid  
Color: colorless, clear  
Odor: odorless  
Classification: Corrosive to Metals - Category 1;  
Hazard symbols:



Signal word: **Warning**  
Hazard statements: May be corrosive to metals.  
Precautionary statements:  
Keep only in original container.  
Absorb spillage to prevent material damage.

#### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

#### Hazards not otherwise classified

A corrosive effect cannot be ruled out because of the pH value.  
see section 11: Toxicological information



# SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

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## Total protein FS Reagent R1

Material number 1 2311 R1

Page: 2 of 7

### 3. Composition / Information on ingredients

Chemical characterization: Aqueous solution

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 1310-73-2	Sodium hydroxide	< 0.5 %	Corrosive to Metals - Category 1. Skin Corrosion - Category 1A.

### 4. First aid measures

- 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.  
After contact with skin, wash immediately with plenty of water.  
Cover with sterile dressing material to protect against infection. Seek medical attention.
- 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: Rinse mouth immediately and drink plenty of water.  
Do not induce vomiting. Do not try to neutralize. Seek medical attention.

#### Most important symptoms/effects, acute and delayed

A corrosive effect cannot be ruled out because of the pH value. Can cause skin, eye and respiratory tract irritation.

In case of ingestion: Irritant up to corrosive.

#### Information to physician

Treat symptomatically.

### 5. Fire fighting measures

Flash point/flash point range:

not combustible

Auto-ignition temperature: No data available

Suitable extinguishing media:

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

#### Specific hazards arising from the chemical

Fires in the immediate vicinity may cause the development of dangerous vapors.

In the event of a fire, the following may be produced when the water evaporates: Sodium compounds, carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

In case of surrounding fires: Wear self-contained breathing apparatus.

### 6. Accidental release measures

Personal precautions: Avoid contact with skin and eyes. Do not breathe vapors. Wear appropriate protective equipment. Keep unprotected people away.



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Material number 1 2311 R1

Page: 3 of 7

### Environmental precautions:

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

### Methods for clean-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.

## 7. Handling and storage

### Handling

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

### Storage

#### Requirements for storerooms and containers:

Keep containers tightly closed and at a temperature between 35.6 °F and 77 °F.  
Protect from light. Keep away from heat. Store containers in upright position.  
Unsuitable materials: Aluminium, zinc, tin.

#### Hints on joint storage:

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

## 8. Exposure controls / personal protection

### Exposure guidelines

#### Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
1310-73-2	Sodium hydroxide	USA: ACGIH: Ceiling	2 mg/m <sup>3</sup>
		USA: NIOSH: Ceiling	2 mg/m <sup>3</sup>
		USA: OSHA: TWA	2 mg/m <sup>3</sup>

### Engineering controls

When aerosols or vapors form: Withdraw by suction.  
See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.  
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: Nitrile rubber-Layer thickness: 0.11 mm.  
Breakthrough time: >480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: In case of inadequate ventilation wear respiratory protection. Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.  
Particulates filter (P2/P3) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.



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## Total protein FS Reagent R1

Material number 1 2311 R1

Page: 4 of 7

### General hygiene considerations:

Do not breathe vapors. 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.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid Color: colorless, clear
Odor:	odorless
Odor threshold:	No data available
pH value:	at 77 °F: 12.80 - 12.85
Melting point/freezing point:	approx. 32 °F
Initial boiling point and boiling range:	approx. 212 °F
Flash point/flash point range:	not combustible
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	at 68 °F: 1.00 g/mL
Water solubility:	at 68 °F: completely miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

## 10. Stability and reactivity

Reactivity:	May be corrosive to metals.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	Reacts with ammonium compounds: Formation of ammonia.
Conditions to avoid:	Keep away from heat.
Incompatible materials:	acids
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition:	No data available



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Page: 5 of 7

## 11. Toxicological information

### Toxicological tests

Toxicological effects:

- Acute toxicity (oral): Lack of data.
- Acute toxicity (dermal): Lack of data.
- Acute toxicity (inhalative): Lack of data.
- Skin corrosion/irritation: Lack of data.
- Serious eye damage/irritation: Lack of data.
- 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. Can cause skin, eye and respiratory tract irritation.  
In case of ingestion: Irritant up to corrosive.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value.

### Mobility in soil

No data available

### Persistence and degradability

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

### Additional ecological information

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

## 13. Disposal considerations

### Product

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

### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

## Total protein FS Reagent R1

Material number 1 2311 R1

Page: 6 of 7

### 14. Transport information

#### USA: Department of Transportation (DOT)

Identification number: UN1824  
 Proper shipping name: UN 1824, SODIUM HYDROXIDE SOLUTION  
 Hazard class or Division: 8  
 Packing Group: III  
 Labels: 8  
 Special provisions: IB3, N34, T4, TP1  
 Packaging – Exceptions: 154  
 Packaging – Non-bulk: 203  
 Packaging – Bulk: 241  
 Quantity limitations – Passenger aircraft / rail: 5 L  
 Quantity limitations – Cargo only: 60 L  
 Vessel stowage – Location: A  
 Vessel stowage – Other: 52.



#### Sea transport (IMDG)

UN number: UN 1824  
 Proper shipping name: UN 1824, SODIUM HYDROXIDE SOLUTION  
 Class or division, Subsidiary risk: Class 8, Subrisk -  
 Packing Group: III  
 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.  
 Marine pollutant: no  
 Segregation group: 18

#### Air transport (IATA)

UN/ID number: UN 1824  
 Proper shipping name: UN 1824, SODIUM HYDROXIDE SOLUTION  
 Class or division, Subsidiary risk: Class 8  
 Packing Group: III  
 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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## Total protein FS Reagent R1

Material number 1 2311 R1

Page: 7 of 7

### 15. Regulatory information

#### National regulations - U.S. Federal Regulations

Sodium hydroxide: TSCA Inventory: listed  
TSCA HPVC: not listed  
Clean Water Act:  
Hazardous Substances: RQ 1000 lbs.  
Other Environmental Laws:  
CERCLA: RQ 1000 lbs.  
NIOSH Recommendations:  
Occupational Health Guideline: 0565

#### National regulations - U.S. State Regulations

Sodium hydroxide: Delaware Air Quality Management List:  
DRQ: 1000 - RQ State: Federal Regulations Apply  
Idaho Air Pollutant List:  
Title 585: AAC: 0,1 - EL: 0,133 - OEL: 2 - Title 586: AAAC: - EL: - OEF: -  
Massachusetts Haz. Substance codes: 2,4,5 F8 F9  
Minnesota Haz. Substance:  
Codes: AO - Ratings: - Status: Title III.  
New York List of Hazardous Substances:  
RQ-Air: 1000 - RQ-Land: 100 - Note: No Note Associated with this chemical.  
Pennsylvania Haz. Substance code: E  
Washington Air Contaminant: Ceiling: 2 mg

#### National regulations - Great Britain

Hazchem-Code: 2R

### 16. Other information

Text for labeling: Contains < 0.5 % Sodium hydroxide. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)  
Fire: 0 (Minimal)  
Reactivity: 1 (Slight)

HMIS Version III Rating:

Health: 1 (Slight)  
Flammability: 0 (Minimal)  
Physical Hazard: 1 (Slight)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	1
	X

Reason of change: ADR/RID 2019

Date of first version: 2/7/2008

#### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

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.