

## 1. Product and company identification

### Product identifier

Trade name: beta-Hydroxybutyrate 21 FS Reagent R1  
As part of the kits:  
1 3711 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

Odor: weak, like surfactants

Classification: Eye Irritation - Category 2A;

Hazard symbols:



Signal word: **Warning**

Hazard statements: Causes serious eye irritation.

Precautionary statements:

Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

### Regulatory status

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



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

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### Hazards not otherwise classified

see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterization: Aqueous solution

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 29915-38-6	3-(tris(Hydroxymethyl) methylamino)propane-1-sulphonic acid	< 3 %	Acute Toxicity - oral - Category 4. Acute Toxicity - dermal - Category 4.
CAS 9002-92-0	Dodecan-1-ol, ethoxylated	< 1.5 %	Acute Toxicity - oral - Category 4. Eye Damage - Category 1.

Additional information: Contains Sodium azide (0.95 g/L) as preservative.

## 4. First aid measures

General information: If medical advice is needed, have product container or label at hand.

In case of inhalation: Move victim to fresh air. In case of respiratory difficulties seek medical attention.

Following skin contact: Change contaminated clothing. After contact with skin, wash immediately with soap and plenty of water. In case of skin reactions, consult a physician.

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 consult an ophthalmologist.

After swallowing: Rinse mouth thoroughly with water. Do not induce vomiting without medical advice. Have victim drink large quantities of water, with active charcoal if possible. Never give anything by mouth to an unconscious person. Seek medical attention.

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

Causes serious eye irritation.

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

No data available

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

In the event of a fire, the following may be produced when the water evaporates: Sodium carbonate, nitrogen oxides (NOx), hydrogen chloride.

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus.



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Additional information: Do not allow fire water to penetrate into surface or ground water.

### 6. Accidental release measures

- Personal precautions: Avoid contact with the substance. Wear appropriate protective equipment. Provide adequate ventilation. Keep unprotected people away. If possible, eliminate leakage.
- Environmental precautions: Do not allow to penetrate into soil, waterbodies or drains.
- Methods for clean-up: Soak up with absorbent materials such as sand, siliceus 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, and local exhaust as needed. Wear appropriate protective equipment. Avoid contact with skin, eyes, and clothing. 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.

#### Storage

Requirements for storerooms and containers: Keep containers tightly closed and at a temperature between 35.6 °F and 46.4 °F. Protect from light. Keep sterile.

### 8. Exposure controls / personal protection

#### Engineering controls

Provide good ventilation and/or an exhaust system in the work area.  
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 - Breakthrough time: >480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Respiratory protection: When aerosols or vapors form:  
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
- General hygiene considerations: Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Have eye wash bottle or eye rinse ready at work place.



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### 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
Odor:	weak, like surfactants
Odor threshold:	No data available
pH value:	at 77 °F: 8.5
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	No data available
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:	1.0213 mg/L
Water solubility:	complete
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:	Refer to subsection "Possibility of hazardous reactions".
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions known.
Conditions to avoid:	Protect against heat /sun rays.
Incompatible materials:	No data available
Hazardous decomposition products:	No decomposition when used properly.
Thermal decomposition:	No data available



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## 11. Toxicological information

### Toxicological tests

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: Lack of data.  
Serious eye damage/irritation: Eye Irritation - Category 2A = 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.

Other information: Contains Sodium azide (0.95 g/L):  
After resorption of toxic quantities: Headache, dizziness, nausea, cough, vomiting, spasms, breathing paralysis, CNS disorders, low blood pressure, cardiovascular failure, unconsciousness, collapse.

### Symptoms

After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

## 12. Ecological information

### Ecotoxicity

Further details: No data available

### Mobility in soil

No data available

### Persistence and degradability

Further details: No data available

### 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.

**14. Transport information**

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

Proper shipping name: Not restricted

**Sea transport (IMDG)**

Proper shipping name: Not restricted

Marine pollutant: no

**Air transport (IATA)**

Proper shipping name: Not restricted

**Further information**

No dangerous good in sense of these transport regulations.

**15. Regulatory information**

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

3-(tris(Hydroxymethyl)methylamino)propane-1-sulphonic acid: TSCA Inventory: listed  
TSCA HPVC: not listed

Dodecan-1-ol, ethoxylated: TSCA Inventory: listed; EPA flags XU  
TSCA HPVC: not listed

**National regulations - Great Britain**

Hazchem-Code: -

**16. Other information**

Text for labeling: Contains < 3 % 3-(tris(Hydroxymethyl)methylamino)propane-1-sulphonic acid, < 1.5 % Dodecan-1-ol, ethoxylated. Safety data sheet available on request.

Hazard rating systems: NFPA Hazard Rating:  
Health: 1 (Slight)  
Fire: 0 (Minimal)  
Reactivity: 0 (Minimal)



HMIS Version III Rating:  
Health: 1 (Slight)  
Flammability: 0 (Minimal)  
Physical Hazard: 0 (Minimal)  
Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

Reason of change: Changes in section 2: Labeling

Date of first version: 6/25/2018

**Department issuing data sheet**

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



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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.