

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

#### 1.1 Product identifier

Trade name: Bilirubin Auto Direct FS Reagent R2  
As part of the kits: 1 0821 XX XX XXX  
(The positions X code different packages.)

UFI: XH00-60WG-600K-T5KE

#### 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.

#### 2.2 Label elements

##### Labelling (CLP)



Signal word:

**Warning**

Hazard statements: H290 May be corrosive to metals.

Precautionary statements: P234 Keep only in original packaging.

P390 Absorb spillage to prevent material damage.

**2.3 Other hazards**

Results of PBT and vPvB assessment: A corrosive effect on the skin cannot be ruled out because of the pH value.  
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
EC No. 231-595-7 CAS 7647-01-0	Hydrochloric acid	3 - 5 %	Met. Corr. 1; H290. Skin Corr. 1B; H314. STOT SE 3; H335.

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

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

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

In case of inhalation: Provide fresh air. Seek medical aid in case of troubles.

Following skin contact: After contact with skin, wash immediately with plenty of water. Take off contaminated clothing and wash it before reuse.  
Cover with sterile dressing material to protect against infection. Immediately get medical attention. 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: 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. Immediately get medical attention.

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

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

**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 case of fire may be liberated: Hydrogen chloride, 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: 2X

### SECTION 6: Accidental release measures

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

Provide adequate ventilation. Do not breathe mist/vapours/spray. Wear appropriate protective equipment. Avoid contact with skin and eyes. Keep unprotected people away. Take off contaminated clothing and wash it before reuse.

#### 6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

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

#### 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 mist/vapours/spray. Avoid contact with skin and eyes. 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.

#### 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 8 °C. Do not freeze. Protect from light. Keep sterile.

Unsuitable materials: Metals

Keep only in original container.

Hints on joint storage: 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
7647-01-0	Hydrochloric acid	Europe: IOELV: STEL	15 mg/m <sup>3</sup> ; 10 ppm (Hydrogen chloride)
		Europe: IOELV: TWA	8 mg/m <sup>3</sup> ; 5 ppm (Hydrogen chloride)
		Great Britain: WEL-STEL	8 mg/m <sup>3</sup> ; 5 ppm (gas and aerosol mists)
		Great Britain: WEL-TWA	2 mg/m <sup>3</sup> ; 1 ppm (gas and aerosol mists)
		Ireland: 15 minutes	15 mg/m <sup>3</sup> ; 10 ppm
		Ireland: 8 hours	8 mg/m <sup>3</sup> ; 5 ppm

**8.2 Exposure controls**

Provide adequate ventilation, and local exhaust as needed.

**Personal protection equipment**

**Occupational exposure controls**

- Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type (E-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:  
Avoid contact with skin and eyes. Wash hands before breaks and after work. Do not breathe mist/vapours/spray. 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.

**Environmental exposure controls**

Refer to "6.2 Environmental precautions".

**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: clear, colourless to slightly yellowish
- Odour: no characteristic odour
- Odour threshold: No data available
- pH: at 25 °C: approx. 0.1



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

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Page: 5 of 9

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: 1.0142 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

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

May be corrosive to metals.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4 Conditions to avoid

Protect against heat /sun rays.

### 10.5 Incompatible materials

Alkalis, metals

### 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: Acute toxicity (oral): Lack of data.  
Acute toxicity (dermal): Lack of data.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Based on available data, the classification criteria are not met.  
Serious eye damage/irritation: Based on available data, the classification criteria are not met.  
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): Based on available data, the classification criteria are not met.  
Specific target organ toxicity (repeated exposure): Lack of data.  
Aspiration hazard: Lack of data.

#### Symptoms

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

### SECTION 12: Ecological information

#### 12.1 Toxicity

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

#### 12.2 Persistence and degradability

Further details: No data available

#### 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: 16 05 06\* = Laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals  
\* = Evidence for disposal must be provided.

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

##### Package

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 3264

#### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid mixture)

#### 14.3 Transport hazard class(es)

ADR/RID: Class 8, Code: C1

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 3264

Hazard label: 8

Special Provisions: 274

Limited quantities: 5 L

EQ: E1

Package - Instructions: P001 IBC03 LP01 R001

Special provisions for packing together: MP19

Portable tanks - Instructions: T7

Portable tanks - Special Provisions: TP1 TP28

Tank coding: L4BN

Tunnel restriction code: E



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Page: 8 of 9

### Sea transport (IMDG)

EmS: F-A, S-B  
Special Provisions: 223 274  
Limited quantities: 5 L  
Excepted quantities: E1  
Package - Instructions: P001, LP01  
Package - Provisions: -  
IBC - Instructions: IBC03  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T7  
Tank instructions - Provisions: TP1, TP28  
Stowage and handling: Category A. SW2  
Segregation: SG36 SG49  
Properties and observations: Causes burns to skin, eyes and mucous membranes.  
Segregation group: 1

### 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

### 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: 2X  
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

For this mixture a chemical safety assessment is not required.





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Page: 9 of 9

### SECTION 16: Other information

#### Further information

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

- H290 = May be corrosive to metals.
- H314 = Causes severe skin burns and eye damage.
- H335 = May cause respiratory irritation.

Abbreviations and acronyms:

- ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- AS/NZS: Australian Standards/New Zealand Standards
- CAS: Chemical Abstracts Service
- CFR: Code of Federal Regulations
- CLP: Classification, Labelling and Packaging
- DMEL: Derived minimal effect level
- DNEL: Derived no-effect level
- EC: European Community
- EN: European Standard
- EQ: Excepted quantities
- EU: European Union
- IATA: International Air Transport Association
- IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
- IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
- IMDG Code: International Maritime Dangerous Goods Code
- MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
- OEL: Occupational Exposure Limit Value
- OSHA: Occupational Safety and Health Administration
- PBT: Persistent, bioaccumulative and toxic
- PNEC: Predicted no-effect concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
- STOT SE: Specific target organ toxicity - single exposure
- TLV: Threshold Limit Value
- TRGS: Technical Rules for Hazardous Substances
- UN: United Nations
- vPvB: Very persistent and very bioaccumulative
- WEL: Workplace Exposure Limit

Reason of change: Changes in section 1: Product Identification

Date of first version: 31/10/2006

#### Department issuing data sheet

Contact person: see section 1: Department 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.