

Iron FS Ferene Reagent R2

Material number 1 1911 R2

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1. Product and company identification

Product identifier

Trade name: Iron FS Ferene Reagent R2
as part of the kits: 1 1911 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
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

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: yellow
Odor: like sulfur
Classification: Carcinogenicity - Category 2; Reproductive toxicant - Category 2;

Hazard symbols:



Signal word: **Warning**
Hazard statements: Suspected of causing cancer.
Suspected of damaging the unborn child.

Precautionary statements:
Obtain special instructions before use.
Wear protective gloves/protective clothing/eye protection.
IF exposed or concerned: 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

Due to its pH value (see section 9), irritation of the skin and eyes cannot be ruled out.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Aqueous solution with Ascorbic acid

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 62-56-6	Thiourea	< 1 %	Acute Toxicity - oral - Category 4. Carcinogenicity - Category 2. Reproductive toxicant - Category 2. Aquatic toxicity - chronic - Category 2.

4. 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:	Provide fresh air. If the casualty has difficulty breathing, call a doctor immediately.
Following skin contact:	Change contaminated clothing. After contact with skin, wash immediately with plenty of water. In case of skin irritation, 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. In case of troubles or persistent symptoms, consult an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Seek medical attention.

Most important symptoms/effects, acute and delayed

Can cause skin, eye and respiratory tract irritation.

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 case of fire may be liberated: Sulphur oxides, nitrogen oxides (NO_x), carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus.



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Additional information: Do not allow water used to extinguish fire to enter drains, ground or waterways.

6. Accidental release measures

Personal precautions: Avoid exposure. Avoid contact with skin, eyes, and clothing. Provide adequate ventilation. Keep unprotected people away. Wear appropriate protective equipment.

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: Obtain special instructions before use. Provide adequate ventilation, and local exhaust as needed. Avoid contact with skin, eyes, and clothing. Keep all containers, equipment and working place clean. Wear appropriate protective equipment. Change contaminated clothing. 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 against heat /sun rays. Keep sterile. Do not freeze. Unsuitable materials: Aluminium, copper, copper alloys, zinc.

Hints on joint storage: Do not store together with strong acids or alkalis.

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: Provide adequate ventilation.

General hygiene considerations: Obtain special instructions before use. Avoid contact with skin, eyes, and clothing. Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. 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: yellow
Odor:	like sulfur
Odor threshold:	No data available
pH value:	at 77 °F: 2.5
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
Vapor pressure:	No data available
Vapor density:	No data available
Density:	at 68 °F: 1.022 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:	No data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	Protect from frost, heat and sunlight.
Incompatible materials:	Strong acids, alkalis, aluminium, copper, copper alloys, zinc.
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition:	No data available



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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: Carcinogenicity - Category 2 = Suspected of causing cancer.
Reproductive toxicity: Reproductive toxicant - Category 2 = Suspected of damaging the unborn child.
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: Chronic toxicity carcinogenic effect:
Information about Thiourea:
IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: listed

Symptoms

Can cause skin, eye and respiratory tract irritation.

12. Ecological information

Ecotoxicity

Aquatic toxicity: In case of spills of large quantities: Harmful effects on water organisms by modification of pH-value.

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.



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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

Thiourea: TSCA Inventory: listed
TSCA HPVC: not listed
Carcinogen Status:
IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: listed
Other Environmental Laws:
CERCLA: RQ 10 lbs.
RCRA Hazardous Wastes: Code U219
SARA Title III Section 313, Toxic Release: Conc. 0.1% / Threshold Standard

National regulations - U.S. State Regulations

Thiourea: California Proposition 65 code: C
Delaware Air Quality Management List:
DRQ: 10 - RQ State: Federal Regulations Apply
Idaho Air Pollutant List:
Title 585: - Title 586: AAAC: 1.8E-03 - EL: 1.2E-05 - OEF: 5.5E-04
Massachusetts Haz. Substance codes: 1,3,7 *E*C* F8 F9
Minnesota Haz. Substance:
Codes: RT - Ratings: - Status: Carcinogen. Title III. TRI.
New Jersey RTK Hazardous Substance:
DOT: 2877 - Sub No.: 1853 - TPQ: -
New York List of Hazardous Substances:
RQ-Air: 10 - RQ-Land: 10 - Note: No Note Associated with this chemical.
Pennsylvania Haz. Substance code: ES
California Proposition 65: cancer

National regulations - Great Britain

Hazchem-Code: -



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16. Other information

Text for labeling: Contains < 1 % Thiourea. Safety data sheet available on request.

Hazard rating systems: NFPA Hazard Rating:



Health: 2 (Moderate)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate) - Chronic effects

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	*	2
FLAMMABILITY		0
PHYSICAL HAZARD		0
		X

Reason of change: Changes in section 2: Labeling

Date of first version: 8/7/2007

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.