

**IRON standard**

Revision date: 18.10.2018

Product code: 4R12599

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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Product group: Endprodukt

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

In-vitro-Diagnostics

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

Company name:	Analyticon® Biotechnologies AG	
Street:	Am Mühlberg 10	
Place:	D-35104 Lichtenfels	
Telephone:	+49 (0) 6454/7991-0	Telefax: +49 (0) 6454/7991-30
e-mail:	support@analyticon-diagnostics.com	
Contact person:	Zentrale	Telephone: +49 (0) 6454/7991-0
Internet:	http://www.analyticon-diagnostics.com	

**1.4. Emergency telephone number:**

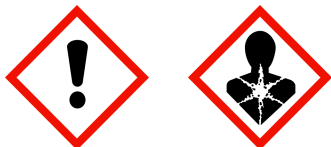
Giftnotruf Mainz: +49 (0) 6131 / 19240

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:  
Respiratory or skin sensitisation: Skin Sens. 1  
Carcinogenicity: Carc. 2  
Hazard Statements:  
May cause an allergic skin reaction.  
Suspected of causing cancer.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

hydroxylammonium chloride; hydroxylamine hydrochloride

**Signal word:** Warning**Pictograms:****Hazard statements**

H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

**Precautionary statements**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P363	Wash contaminated clothing before reuse.
P308+P313	IF exposed or concerned: Get medical advice/attention.



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Store locked up.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Iron(III)chloride hexahydrate in aqueous solution

**Hazardous components**

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
5470-11-1	hydroxylammonium chloride; hydroxylamine hydrochloride			5 - < 10 %
	226-798-2	612-123-00-2		
	Met. Corr. 1, Carc. 2, Acute Tox. 4, Acute Tox. 4, STOT RE 2, Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1, Aquatic Acute 1; H290 H351 H312 H302 H373 ** H319 H315 H317 H400			

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

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Move victim out of danger zone.

**After inhalation**

Provide fresh air.

**After contact with skin**

After contact with skin, wash immediately with: Water. Subsequently wash off with: Polyethylene glykol 400. Remove contaminated, saturated clothing immediately. Medical treatment necessary.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**If swallowed, immediately drink: Water.  
Caution if victim vomits: Risk of aspiration!**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**

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation.

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Do not breathe gas/fumes/vapour/spray.  
Avoid contact with skin, eyes and clothes.  
Wear personal protection equipment.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used.  
Do not breathe gas/fumes/vapour/spray.  
Use only in well-ventilated areas.  
The floor should be leak tight, jointless and not absorbent.  
All work processes must always be designed so that the following is excluded:  
inhalation. skin contact. Eye contact.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.  
When using do not smoke.

**Further information on handling**

When using do not eat, drink, smoke, sniff.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.  
Keep locked up.  
Store in a place accessible by authorized persons only.  
Keep only in the original container in a cool, well-ventilated place.

**Advice on storage compatibility**

The product is not: Combustible. Exclude sources of ignition-no smoking

**Further information on storage conditions**

Recommended storage temperature: of °C: 2 up to °C: 8  
Protect against: heat. UV-radiation/sunlight.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

**Eye/face protection**

Eye protection: Tightly sealed safety glasses.

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**Hand protection**

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): DIN EN 374  
Breakthrough times and swelling properties of the material must be taken into consideration.

**Skin protection**

Suitable protective clothing: Lab apron.  
Footwear: Chemical resistant safety shoes.

**Respiratory protection**

Respiratory protection necessary at: insufficient ventilation. Handling larger quantities.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: liquid  
Colour: colourless  
Odour: characteristic

**Changes in the physical state**

Melting point: The product has not been tested.  
Initial boiling point and boiling range: The product has not been tested.

**Explosive properties**

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

**Oxidizing properties**

Not oxidizing.

Vapour pressure: Corresponds to the vapour pressure of water.

Density: 1,02 g/cm<sup>3</sup>

Water solubility: completely miscible

**SECTION 10: Stability and reactivity****10.4. Conditions to avoid**

May cause decomposition by long-term light influence.

**10.6. Hazardous decomposition products**

Carbon dioxide. Carbon monoxide. Nitrogen oxides (NO<sub>x</sub>).

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

No information available.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
5470-11-1	hydroxylammonium chloride; hydroxylamine hydrochloride				
	oral	ATE mg/kg	500		
	dermal	ATE mg/kg	1100		

**Irritation and corrosivity**

No information available.

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**Sensitising effects**

May cause sensitization by skin contact.

**Carcinogenic/mutagenic/toxic effects for reproduction**

May cause cancer.

**STOT-repeated exposure**

No information available.

**Specific effects in experiment on an animal**

No information available.

**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 12: Ecological information****12.1. Toxicity**

No data available

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

**12.6. Other adverse effects**

No data available

**Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of contaminated packaging**

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

**Contaminated packaging**

Non-contaminated packages may be recycled.

Handle contaminated packages in the same way as the substance itself.



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**SECTION 14: Transport information****Land transport (ADR/RID)**

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 3 - highly water contaminating

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 14.

**Relevant H and EUH statements (number and full text)**

- H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H351 Suspected of causing cancer.  
H373 May cause damage to organs through prolonged or repeated exposure.



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H400 Very toxic to aquatic life.

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*