

IRON reagent A

Date 14.9.2007

Previous date: 15.3.2004

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**1.1 Identification of the article****1.1.1 Commercial Product Name**

IRON reagent A

1.1.2 Product code

981236

1.2 Use of the Substance/Preparation**1.2.1 Expressed in writing**

In vitro diagnostic reagent for the clinical chemistry analyser.

1.3 Identification of the substance/preparation and the company/undertaking**1.3.1 Supplier**

Thermo Fisher Scientific Oy, Clinical Diagnostics Finland

1.3.2 Contact information:

Ratastie 2, P.O.Box 100
 FI-01621 Vantaa
 FINLAND
 +358-9-329 100
 +358-9-3291 0300
 FI09215470

2. COMPOSITION/INFORMATION ON INGREDIENTS**2.1 Hazardous components**

2.1.1	2.1.2	2.1.3	2.1.4
CAS number	Chemical name of the substance	Concentration	Classification
50-01-1	guanidine hydrochloride	57.3 %	Xn; R22; Xi; R36/38
62-56-6	thiourea	0.76 %	Carc. Cat.3; R40; Repr. Cat.3, R63; Xn; R22; N; R51-53

3. HAZARDS IDENTIFICATION

Harmful if swallowed.
 Irritating to eyes and skin.

4. FIRST AID MEASURES**4.1 Additional advice**

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

4.2 Inhalation

Move to fresh air. In case of shortness of breath, give oxygen.

4.3 Skin contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

4.4 Eye contact

Rinse immediately with plenty of water and seek medical advice.

Keep eye wide open while rinsing.

4.5 Ingestion

If swallowed, seek medical advice immediately and show this container or label. Drink 1 or 2 glasses of water. Do not induce vomiting.

4.6 Information to doctor or other trained persons giving first aid

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5. FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media**
Water, foam, carbon dioxide (CO₂).
- 5.3 Specific hazards**
Fire may cause produce fumes hazardous to health.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions**
Ensure adequate ventilation.
Use personal protective equipment.
- 6.2 Environmental precautions**
Do not flush into surface water or drainage system without first diluting and neutralising.
- 6.3 Methods for cleaning up**
Soak up with inert absorbent material.

7. HANDLING AND STORAGE

- 7.1 Handling**
Avoid contact with skin and eyes.
- 7.2 Storage**
Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Exposure Limit Values**
- 8.1.1 HTP values**
- | | | |
|---------|-------------------------|-----------------------------|
| 50-01-1 | Guanidine hydrochloride | |
| 62-56-6 | Thiourea | 0,5 mg/m ³ (8 h) |
- 8.2 Exposure controls**
- 8.2.1 Occupational exposure controls**
-
- 8.2.1.1 Respiratory protection**
No personal respiratory protective equipment normally required.
- 8.2.1.2 Hand protection**
Impervious butyl rubber gloves, nitrile rubber/neoprene gloves, PVC or other plastic material gloves.
- 8.2.1.3 Eye protection**
Face-shield, if there is a risk of spalshing. Do not use contact lenses, if there is a risk of splashing into the eyes.
- 8.2.1.4 Skin and body protection**
Lab coat.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 General Information (appearance, odour)**
Colourless, with a weak smell, liquid.
- 9.2 Important Health Safety and Environmental Information**
- 9.2.1 pH** 4.8
- 9.2.2 Boiling point/range** 100°C (water)
- 9.2.3 Flash point** -

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9.2.5	Explosive properties	
9.2.5.1	Lower explosion limit	.
9.2.5.2	Upper explosion limit	.
9.2.7	Vapour pressure	.
9.2.8	Relative density	.
9.2.9	Solubility	
9.2.9.1	Water solubility	completely soluble
9.2.10	Partition coefficient (n-octanol/water)	Guanidine hydrochloride, $\log P_{o/w} = < 1.7$

10. STABILITY AND REACTIVITY

- 10.1 Conditions to avoid**
Must not be stored in the heat or near hot objects.
- 10.3 Hazardous decomposition products**
Thermal decomposition can lead to release of irritating gases and vapours. e.g. Ammonia

11. TOXICOLOGICAL INFORMATION

- 11.1 Acute toxicity**
Guanidine hydrochloride: LD50/oral/rat =475 mg/kg
Thiourea: LD50/oral/rat =125 mg/kg
- 11.2 Primary irritation**
Irritating to eyes and skin.
- 11.3 Sensitisation**
Effects of excessive exposure may include light dermatitis.
- 11.4 Subacute, subchronic and prolonged toxicity**
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- 11.5 Human experience**
Heavy exposure may cause leucopeny and thrombocytopeny.
- 11.6 Other information of acute toxicity**
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12. ECOLOGICAL INFORMATION

- 12.1 Ecotoxicity**
- 12.1.1 Aquatic toxicity**
LC50/24h/daphnia =1.8 mg/l
- 12.1.2 Toxicity to other organisms**
-
- 12.2 Mobility**
-
- 12.3 Persistence and degradability**
- 12.3.1 Biodegradation**
-
- 12.3.2 Chemical degradation**
-
- 12.4 Bioaccumulative potential**
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13. DISPOSAL CONSIDERATIONS

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The product has to be disposed of as laboratory chemical in accordance with local regulations.

14. TRANSPORT INFORMATION

14.3	Land transport	
14.3.1	Class	-
14.3.2	Risk No.	-
14.3.3	Description of the goods	Iron reagent
14.3.4	Further Information	-
14.4	Sea transport	
14.4.1	IMDG	-
14.4.2	Proper shipping name	Guanidine acetate buffer pH 4.8
14.4.3	Further Information	-
14.5	Air transport	
14.5.1	ICAO/IATA	-
14.5.2	Proper shipping name	Guanidine acetate buffer pH 4.8
14.5.3	Further Information	-

15. REGULATORY INFORMATION

15.1	Information on the warning label	
	EC Label	200-002-3
15.1.1	Letter code of the warning symbol and indications of danger for the preparation	
	Xn	Harmful
15.1.2	Names of the ingredients given on the warning label	
	guanidine hydrochloride	
15.1.3	R-phrase(s)	
	R22	Harmful if swallowed.
	R36/38	Irritating to eyes and skin.
15.1.4	S-phrase(s)	
	S24/25	Avoid contact with skin and eyes.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S37	Wear suitable gloves.

16. OTHER INFORMATION

16.1	List of the relevant R phrases
	R22 Harmful if swallowed.
	R36/38 Irritating to eyes and skin.
	R40 Limited evidence of a carcinogenic effect.
	R51 Toxic to aquatic organisms.
	R53 May cause long-term adverse effects in the aquatic environment.
	R63 Possible risk of harm to the unborn child.
16.4	Additional information available from:
	Code of the Material Safety Data Sheet: D00833-03-03-MSDS-Iron-Reagent A-EN Corporation mentioned in point 1.3. The information in this datasheet is to our best knowledge correct and complete, and is offered in good faith as accurate. It characterizes the product with regard to the appropriate safety precautions. It does not guarantee properties of the product.
16.5	Literary reference
	The MSDS of the manufacturer. This product has been evaluated in accordance with the directives 1967/548/EEC, 1999/45/EC and 2001/58/EC.

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16.6 Additions, Deletions, Revisions
Changes in the sections 1.3 and 16.

Date

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Signature

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