

SAFETY DATA SHEET

Document ID: B71516 Version AE
Revision Date (year/month/day) 2022/03/02
Last Revision Date (year/month/day) 2020/07/17

Section 1 Identification of the Substance/mixture and of the Company/undertaking

1.1 Product Identifier

Product Name MicroScan 10% Ferric Chloride

Part Number B1010-48A, B1015-48

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product Use For In Vitro Diagnostic Use. See product literature for details.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Beckman Coulter, Inc.
250 S. Kraemer Blvd
Brea, CA 92821, U.S.A.
Tel: 800-854-3633

EC REP Address

Beckman Coulter Ireland Inc.
Lismeehan, O'Callaghan's Mills,
Co. Clare, Ireland
Tel: +(353) (0) 65 683 1100

e-mail address SDSNT@beckman.com

1.4 Emergency telephone number

Telephone number (24H) Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887

Distributor and Emergency Phone No.

Refer to attached list, Document ID: [472050](#), for local distributor and emergency phone numbers.

Section 2 Hazards Identification

2.1 Classification of substance or mixture

Product Description Mixture
Light amber to dark amber; Clear; Liquid; Odorless

Classification according to EC 1272/2008 (CLP/GHS)

Skin Corrosion Category 1
Eye Damage Category 1

Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS

Skin Corrosion Category 1
Eye Damage Category 1

2.2 Label Elements

According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS

Hazardous Ingredients

Ferric Chloride, Hexahydrate
Hydrochloric Acid

Pictogram



Signal Word

DANGER

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Section 2 Hazards Identification (Continued)

Hazard Statements

H314 Causes severe skin burns and eye damage.

Precautionary Statements

P280 Wear protective gloves, protective clothing and eye/face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Rinse skin with water.
P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national regulations
Product label will display most significant precautionary statements.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

See Section 11 Toxicological Information for more detailed health information.

Section 3 Composition and Information on Ingredients

3.2 Mixtures

Hazardous Ingredients:		Hazard Classification of Pure Ingredients		
Chemical Name	% by wt.	EU 1272/2008 CLP/GHS	GHS	Note
Ferric Chloride, Hexahydrate CAS # 10025-77-1 EINECS # Not available Index # Not available	5 - 10	Acute Tox. Oral 4, H302 Aquatic Longterm 3, H412 Skin Corr. 1B, H314	Acute Tox. Oral 4, H302 Aquatic Longterm 3, H412 Skin Corr. 1B, H314	
Hydrochloric Acid CAS # 7647-01-0 EINECS # 231-595-7 Index # 017-002-01-X	1 - 2	Acute Tox. Oral 4, H302 STOT SE 3, H335 Skin Corr. 1B, H314	Acute Tox. Oral 4, H302 STOT SE 3, H335 Skin Corr. 1B, H314	

See section 8 for available Occupational exposure limits

See Section 15 for additional regulatory information

See Section 16 for description of hazard class and hazard statements

Section 4 First Aid Measures

4.1 Description of first aid measures

- Inhalation** If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration by trained personnel and obtain medical attention immediately.
- Eye Contact** If product enters eyes, rinse eyes gently with water for 15 minutes or longer, making sure that the eyelid is held open. Obtain medical advice/attention.
- Skin Contact** In case of skin contact, rinse with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Obtain medical advice/attention.
- Ingestion** If product is ingested, rinse mouth with water. If irritation or discomfort occurs, obtain medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Corrosive. May cause burns to eyes, skin and respiratory tract.
See Section 11 Toxicological Information for more detailed health information.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available. Refer to Section 4.1.

Section 5 Fire Fighting Measures

- 5.1 Extinguishing Media** In case of fire use carbon dioxide (CO₂), dry chemical, water spray or foam.
For large fires use extinguishing media suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture Special Fire and Explosion Hazards

No special hazards determined.

Hazardous Combustion Products

No combustion products posing significant hazards are expected from this product (an aqueous solution).

5.3 Advice for fire fighters

Protective Equipment Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

- 5.4 Additional information** No further relevant information available.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions Observe general safety guidelines for protection; avoid eye and skin contact.
Wear protective gloves, protective clothing and tightly sealed eye/face protection.

- 6.2 Environmental Precautions** Contain spill to prevent migration.
Do not allow the undiluted product to enter sewers/surface or ground water.
Dispose of contents/container in accordance with local regulations

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Section 6 Accidental Release Measures (Continued)

6.3 Methods and material for containment and cleaning up

Spill and Leak Procedures Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

6.4 Reference to other sections Refer sections 8 and 13.

Section 7 Handling and Storage

7.1 Precautions for safe handling Use good laboratory procedures; avoid eye and skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Store at 15 to 30°C, as directed on the product label.

To maintain product quality, store according to the instructions in the product labeling.

Store away from strong acids, strong bases, strong oxidizers and incompatible materials (section 10).

7.3 Specific end uses No further relevant information available.

Section 8 Exposure Controls and Personal Protection

8.1 Control parameters

Exposure Limits

US OSHA

Hydrochloric Acid
CAS # 7647-01-0 5 ppm Ceiling; 7 mg/m³ Ceiling

ACGIH

Hydrochloric Acid
CAS # 7647-01-0 2 ppm Ceiling

Ferric Chloride, Hexahydrate
CAS # 10025-77-1 1 mg/m³ TWA (as Fe)

DFG MAK

Hydrochloric Acid
CAS # 7647-01-0 4 ppm Peak; 6 mg/m³ Peak; 2 ppm TWA MAK; 3.0 mg/m³ TWA MAK

Ireland

Hydrochloric Acid
CAS # 7647-01-0 8 mg/m³ TWA (as F); 5 ppm TWA; 10 ppm STEL; 15 mg/m³ STEL

Ferric Chloride, Hexahydrate
CAS # 10025-77-1 1 mg/m³ TWA (as Fe); 2 mg/m³ STEL

IOELVs

Hydrochloric Acid
CAS # 7647-01-0 10 ppm STEL; 15 mg/m³ STEL; 5 ppm TWA; 8 mg/m³ TWA

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Section 8 Exposure Controls and Personal Protection (Continued)

NIOSH

Hydrochloric Acid CAS # 7647-01-0	50 ppm IDLH
Ferric Chloride, Hexahydrate CAS # 10025-77-1	1 mg/m ³ TWA (as Fe)

Japan None established

Sweden (AFS 2015:7 and amendments)

Hydrochloric Acid CAS # 7647-01-0	2 ppm TLV; 3 mg/m ³ TLV; 4 ppm Binding STEL; 6 mg/m ³ Binding STEL
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8.2 Exposure controls

Engineering Controls No special engineering controls are required. Use with good general ventilation.

Eye Protection Safety glasses or chemical goggles should be worn to prevent eye contact.
Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.

Skin Protection Wear impervious gloves such as Nitrile or equivalent and protective clothing.
Refer to U.S. OSHA 29 CFR 1910.138, European Standard EN 374, EN 14605:2005+A1:2009 or appropriate government standards.

Respiratory Protection Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid	Specific Gravity (Water=1.0)	≈ 1.0 - 1.1
Color	Light amber to dark amber	Solubility	
Transparency	Clear	Water	Miscible
Odor	Odorless	Organic	Not determined
pH	<2	Partition coefficient: n-octanol/water	Not determined
Freezing Point	≈ 0°C (32°F)	Auto-ignition Temp.	Not applicable
Boiling Point	≈ 100°C (212°F)	Decomposition Temperature	Not determined
Flash Point	Not applicable	Percent Volatiles	Not applicable
Evaporation Rate	Not determined	Vapor Pressure	Not determined
Flammability (Solid, Gas)	Not applicable	Viscosity	Not determined
Flammability Limits	Not applicable	Explosive Properties	Not applicable

Section 9 Physical and Chemical Properties (Continued)

Vapor Density	Not determined	Oxidizing Properties	Not applicable
Odor Threshold	Hydrochloric Acid 0.06 ppm odor threshold value (detectable)		
9.2 Other Information	No further relevant information available.		

Section 10 Stability and Reactivity

10.1 Reactivity	No further relevant information available.
10.2 Chemical Stability	The product is stable in accordance with recommended storage conditions.
10.3 Possibility of hazardous reactions	No further relevant information available.
10.4 Conditions to Avoid	To maintain product performance keep away from strong acids, strong bases, strong oxidizers. Avoid exposure to heat and direct sunlight.
10.5 Incompatible materials	No further relevant information available.
10.6 Hazardous Decomposition Products	No decomposition products posing significant hazards would be expected from this product (an aqueous solution).

Section 11 Toxicological Information

11.1 Information on toxicological effects	
Toxicity Data for Hazardous Ingredients	
Hydrochloric Acid CAS # 7647-01-0	Dermal LD50 Rabbit >5010 mg/kg; Inhalation LC50 Rat 1.68 mg/L 1 h; Oral LD50 Rat 238 - 277 mg/kg
Ferric Chloride, Hexahydrate CAS # 10025-77-1	Oral LD50 Rat 900 mg/kg
Primary Routes of Exposure	Eye contact, ingestion, inhalation, and skin contact.
Acute Toxicity	Not classified based on available data.
Skin Corrosion/Irritation	Contact may cause severe skin burns.
Serious eye damage/eye irritation	Contact may cause serious eye damage.
Respiratory/skin sensitization	Not classified based on available data.
Carcinogenicity	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 1272/2008 EC regulation.
Germ cell mutagenicity	Not classified based on available data.
Reproductive Toxicity	Not classified based on available data.

Section 11 Toxicological Information (Continued)

Specific target organ toxicity – single exposure

Not classified based on available data.

Specific target organ toxicity – repeated exposure

Not classified based on available data.

Aspiration hazard

Not classified based on available data.

Other Information

No further relevant information available.

Section 12 Ecological Information

12.1 Ecotoxicity

Fresh Water Species

No information available.

Microtox

No information available.

Water Flea

No information available.

Fresh Water Algae

No information available.

12.2 Persistence and degradability Not determined for the product.

12.3 Bioaccumulation Not determined for the product.

12.4 Mobility in soil Not determined for the product.

12.5 Results of PBT and vPvB assessment

Not determined for the product. PBT: Not applicable, vPvB: Not applicable.

12.6 Other Adverse Effects

This product contains environmentally hazardous substance below the cutoff level. Refer section 3 for ingredient information. Do not allow undiluted product to enter sewer/surface or ground water.

Section 13 Disposal Considerations

13.1 Waste treatment methods

Product Waste Disposal

Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.

Package disposal

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

13.2 Additional information

Suggested European waste catalogue 18 01 06* - chemicals consisting of or containing dangerous substances. Dispose in accordance with national, state and local waste regulations.

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Section 14 Transport Information

Shipping Information	IATA	IMDG	US DOT	European ADR	Canadian TDG
14.1 UN/ID Number	3264	3264	3264	3264	PIN - 3264
14.2 Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid, Ferric chloride)				
14.3 Hazard Class	8 Corrosives	8 Corrosive substances	8 Corrosive material	8 Corrosive substances	8 Corrosives
Subsidiary Risk	None	None	None	None	None
Classification Code	Not applicable	Not applicable	Not applicable	C1	Not applicable
14.4 Packing Group	II	II	II	II	II
Special Provisions	A3	274	None	274	16
Additional information					
IATA ERG Code	8L	Not applicable	Not applicable	Not applicable	Not applicable
EmS	Not applicable	F-A, S-B	Not applicable	Not applicable	Not applicable
NAERG Code	Not applicable	Not applicable	154	Not applicable	154
14.5 Environmental Hazards					
Marine Pollutant	Not applicable	No	Not applicable	Not applicable	Not applicable
14.6 Special Precautions for user	Warning: Corrosive substances.				
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable				

Section 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US Federal and State Regulations

SARA 313 (Section 313, Title III reporting requirements)

CAS # 7647-01-0 Hydrochloric Acid 1.0% de minimis concentration

CERCLA (The Comprehensive Environmental Response, Compensation, and Liability Act) 40 CFR 302.4

CAS # 7647-01-0 Hydrochloric Acid

California Proposition 65

Chemical which is known to the State of California to cause cancer

No ingredients listed.

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Section 15 Regulatory Information (Continued)

Chemical which is known to the State of California to cause development toxicity

No ingredients listed.

Chemical which is known to the State of California to cause male reproductive toxicity

No ingredients listed.

Chemical which is known to the State of California to cause female reproductive toxicity

No ingredients listed.

Massachusetts Right To Know (RTK) List

CAS # 7647-01-0 Hydrochloric Acid

New Jersey Dept. of Health Right To Know (RTK) List

CAS # 7647-01-0 Hydrochloric Acid

Pennsylvania Right To Know (RTK) List

CAS # 7647-01-0 Hydrochloric Acid

CAS # 10025-77-1 Ferric Chloride, Hexahydrate

EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.

Refer to Section 3

Canada

This product is exempt from WHMIS label and SDS requirements.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

Some hazardous ingredients listed in Section 15 are below the cutoff limits of 0.1% for carcinogen, mutagen and reproductive toxin and 1% for other health hazards required for reporting in Section 3.

Section 16 Other Information

Beckman Coulter Safety Rating	Flammability: 0 Health: 3 Reactivity with Water: 0 Physical Contact: 3	Code 0=None 1=Slight 2=Caution 3=Severe
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Revision Changes

Update of EC Rep Address

Document version and issue/revision date

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Description of hazard Class and hazard statements from Section 3

Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4

Section 16 Other Information (Continued)

Abbreviations and Acronyms

Aquatic Longterm 3 - Aquatic Hazard Long term, Category 3
Skin Corr. 1B - Skin Corrosion Category 1B
STOT SE 3 - Specific Target Organ Toxicity Single Exposure Category 3
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
H412 - Harmful to aquatic life with long lasting effects.
ACGIH - American Conference of Governmental Industrial Hygienists
ADR and RID - European Agreement Concerning The International Carriage Of Dangerous Goods By Road and Rail
CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act
CLP - Classification, Labeling and Packaging
DFGMAK - Republic Germany's maximum exposure limit
GHS - Globally Harmonized System
HCS - Hazard Communication Standard
IARC - International Agency for Research on Cancer
IATA DGR - International Air Transport Association Dangerous Goods Regulation
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods
IOELVs - European Unions' Indicative Occupational Exposure Limit Values
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PBT - Persistent bioaccumulative and toxic substances
SARA - Superfund Amendments and Reauthorization Act
TDG - Canadian Transportation Of Dangerous Goods Regulations.
UN GHS - United Nations Globally Harmonized System
US DOT - United States Department of Transportation
WHMIS - Workplace Hazardous Material Information System
vPvB - Very persistent and very bioaccumulative substances
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%

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