Kit SDS Cover Sheet

Doc. ID: OSR6113-75: Rev. 04
Revised (year/month/day) 2015/04/23

Product Information

Product Name	Calcium oCPC
Part Number	OSR6113, OSR6213

Components

Description	Calcium R1 Calcium R2

Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

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SAFETY DATA SHEET

Doc. ID: OSR6113-75 Rev. 04
Revised (year/month/day) 2015/04/23

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

1.1 Product Identifier

Product Name Calcium R1

Part Number Component of P/N OSR6113, OSR6213

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	EC REP Address
Beckman Coulter, Inc. 250 S. Kraemer Blvd Brea, CA 92821, U.S.A. Tel: 800-854-3633	Beckman Coulter Ireland Inc. Lismeehan O'Callaghan's Mills Co. Clare Ireland Tel: 353 (0)65 6831100

e-mail address SDSNT@beckman.com

Further information Contact:
Customer support Unit, Beckman Coulter Ireland Inc.
Technical Service Department Tel. +001-800-854-3633 (PST)
E-mail CC_Support.ie@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

Tel +353 (0)65 683 1170; 08:00 - 16:30 hrs Mon-Thur, 08:00 - 15:30 hrs Fri (GMT) Tel +001-800-223-0130 (PST)

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 In vitro diagnostic reagent.

Colorless; Clear; Liquid; Mild odor

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

Skin Corrosion Category 1B

Eye Damage Category 1

Specific Target Organ Toxicity Single Exposure Category 3

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Section 2 Hazards Identification (Continued)

Classification according to EC Directives 1999/45/EC and 67/548/EEC

Xi;R36/37/38

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

Skin Corrosion Category 1B

Eye Damage Category 1

2.2 Label Elements

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

Hazardous Ingredients

Ethanolamine

Pictogram



Signal Word

DANGER

Hazard Statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary Statements

P261 Avoid breathing vapours.

P271 Use only outdoors or in a well-ventilated area.

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.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/national regulations

Product label will display most significant precautionary statements.

For full text of R- phrases: see Section 16.

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

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Section 3 Composition and Information on Ingredients (Continued)

Hazardous Ingredients:		Hazard Classification of Pure Ingredients			
Chemical Name	**% by wt.**	**EU-67/548/EEC**	**EU 1272/2008 CLP/GHS**	**GHS**	
Ethanolamine CAS # 141-43-5 EINECS # 205-483-3 Index # 603-030-00-8	5 - 10	C;R20/21/22-34	Acute Tox. Dermal 4 Acute Tox. Inhal. 4 Acute Tox. Oral 4 Skin Corr. 1B H302; H312; H314; H332	Acute Tox. Dermal 4 Acute Tox. Inhal. 4 Acute Tox. Oral 4 Aquatic Acute 3 Flam. Liq. 4 Skin Corr. 1B H227; H302; H312; H314; H332; H402	
Sodium Acetate CAS # 127-09-3 EINECS # 204-823-8 Index # Not available	5 - 10	No	Eye Irrit. 2B H320	Acute Tox. Inhal. 5 Acute Tox. Oral 5 Eye Irrit. 2B Skin Irrit. 3 H303; H316; H320; H333	3, 8

3 - Health hazard
8 - Present at concentration below the cut-off limits.

See section 8 for available Occupational exposure limits
See Section 15 for additional regulatory information
See Section 16 for hazard class, hazard statements and risk phrase description

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 immediately and obtain medical attention.

Eye Contact — If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.

Skin Contact — In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.

Ingestion — If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

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 specific medical attention or treatment required.

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Section 5 Fire Fighting Measures

Flammable Properties Nonflammable aqueous solution.

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.
Avoid inhaling, ingesting, and contact with eyes and skin.

6.2 Environmental Precautions Contain spill to prevent migration.
Do not allow the undiluted product to enter sewers/surface or ground water.

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 2 to 25°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.

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Section 8 Exposure Controls and Personal Protection

8.1 Control parameters

Exposure Limits

US OSHA

Ethanolamine CAS # 141-43-5	3 ppm TWA; 6 mg/m3 TWA

ACGIH

Ethanolamine CAS # 141-43-5	6 ppm STEL; 3 ppm TWA

DFG MAK

Ethanolamine CAS # 141-43-5	4 ppm Peak; 10.2 mg/m3 Peak; 2 ppm TWA MAK; 5.1 mg/m3 TWA MAK

Ireland

Ethanolamine CAS # 141-43-5	1 ppm TWA; 2.5 mg/m3 TWA; 3 ppm STEL; 7.6 mg/m3 STEL; Potential for cutaneous absorption

IOELVs

Ethanolamine CAS # 141-43-5	3 ppm STEL; 7.6 mg/m3 STEL; Possibility of significant uptake through the skin; 1 ppm TWA; 2.5 mg/m3 TWA

NIOSH

Ethanolamine CAS # 141-43-5	30 ppm IDLH; 6 ppm STEL; 15 mg/m3 STEL; 3 ppm TWA; 8 mg/m3 TWA

Japan

Ethanolamine CAS # 141-43-5	3 ppm OEL; 7.5 mg/m3 OEL

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	Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 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.

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Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid	**Specific Gravity (Water=1.0)**	1.0293
Color	Colorless	**Solubility**	
Transparency	Clear	**Water**	Miscible
Odor	Mild odor	**Organic**	Not determined
pH	11	**Partition coefficient: n-octanol/water**	Not determined
Freezing Point	Similar to water, approximately 0 °C	**Auto-ignition Temp.**	Product is not selfigniting
Boiling Point	Similar to water, approximately 100 °C	**Decomposition Temperature**	Not determined
Flash Point	Not applicable	**Percent Volatiles**	Not applicable
Evaporation Rate	Not determined	**Vapor Pressure**	Similar to water, approximately 23 hPa
Flammability (Solid, Gas)	Not applicable	**Viscosity**	Not determined
Flammability Limits	Not applicable	**Explosive Properties**	Not applicable
Vapor Density	Not determined	**Oxidizing Properties**	Not applicable
Odor Threshold	Not applicable		

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 Avoid contact with incompatible materials.
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).

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Section 11 Toxicological Information

11.1 Information on toxicological effects

Toxicity Data for Hazardous Ingredients

Sodium Acetate CAS # 127-09-3	Inhalation LC50 Rat >30 g/m3 1 h; Oral LD50 Rat 3530 mg/kg; Dermal LD50 Rabbit >10 g/kg
Ethanolamine CAS # 141-43-5	Oral LD50 Rat 1720 mg/kg; Dermal LD50 Rabbit 1 mL/kg; Dermal LD50 Rabbit 1025 mg/kg

Primary Routes of Exposure Eye contact, ingestion, inhalation, and skin contact.

Skin Corrosion/Irritation Contact may cause skin burns.

Serious eye damage/eye irritation Contact may cause serious eye damage.

Respiratory/skin sensitization No data available.

Carcinogenicity No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

Germ cell mutagenicity No data available

Reproductive Toxicity No data available.

Specific target organ toxicity – single exposure

No data available.

Specific target organ toxicity – repeated exposure

No data available.

Aspiration hazard No data available.

Other Information No further relevant information available.

Section 12 Ecological Information

12.1 Ecotoxicity

Fresh Water Species

Ethanolamine CAS # 141-43-5	96 h LC50 Pimephales promelas: 227 mg/L [flow-through]; 96 h LC50 Brachydanio rerio: 3684 mg/L [static]; 96 h LC50 Lepomis macrochirus: 300-1000 mg/L [static]; 96 h LC50 Oncorhynchus mykiss: 114-196 mg/L [static]; 96 h LC50 Oncorhynchus mykiss: >200 mg/L [flow-through]

Microtox No information available.

Water Flea

Sodium Acetate CAS # 127-09-3	48 h EC50 Daphnia magna: >1000 mg/L
Ethanolamine CAS # 141-43-5	48 h EC50 Daphnia magna: 65 mg/L

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Section 12 Ecological Information (Continued)

Fresh Water Algae

Ethanolamine CAS # 141-43-5	72 h EC50 Desmodesmus subspicatus: 15 mg/L

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 No further relevant information available.

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 07 - chemicals other than those mentioned in 18 01 06. Dispose in accordance with national, state and local waste regulations.

Section 14 Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

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 No ingredients listed.

California Proposition 65 No ingredients listed.

Massachusetts MSL Ethanolamine is listed.

New Jersey Dept. of Health RTK List

Ethanolamine is listed.

Pennsylvania RTK Ethanolamine is listed.

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Section 15 Regulatory Information (Continued)

EU Regulations

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

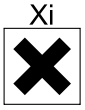
Water Hazard Class (Germany) WGK 1, low water endangering

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

No ingredients listed.

According to EC Directives (1999/45/EC and 67/548 EEC)

Irritant
Xi



Risk and Safety Phrases

R36/37/38 Irritating to eyes, respiratory system and skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 This material and/or its container must be disposed of as hazardous waste.

Canada

This product is exempt from WHMIS label and SDS requirements.

PIN Not applicable

Ingredients on Ingredient Disclosure List

Ethanolamine

Ingredients with unknown toxicological properties

Product is exempt

15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out.

Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.

Section 16 Other Information

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

Revision Changes Updated to GHS.

Hazard Class, hazard statements and risk phrase description from section 3

C - Corrosive
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
Aquatic Acute 3 - Aquatic Hazard Acute, Category 3
Acute Tox. Dermal 4 - Acute Toxicity Dermal, Category 4
Acute Tox. Inhal. 4 - Acute Toxicity Inhalation, Category 4
Acute Tox. Inhal. 5 - Acute Toxicity Inhalation, Category 5
Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4
Acute Tox. Oral 5 - Acute Toxicity Oral, Category 5

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Section 16 Other Information (Continued)

Eye Irrit. 2B - Eye Irritation Category 2B
Flam. Liq. 4 - Flammable Liquids, Category 4
Skin Corr. 1B - Skin Corrosion Category 1B
Skin Irrit. 3 - Skin Irritation Category 3
H227 - Combustible Liquid
H302 - Harmful if swallowed.
H303 - May be harmful if swallowed
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H316 - Causes mild skin irritation.
H320 - Causes eye irritation
H332 - Harmful if inhaled.
H333 - May be harmful if inhaled
H402 - Harmful to aquatic life.

Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road
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 - Internal Agency for Research on Cancer
IATA - International Air Transport Association
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%

For further information, please contact your local Beckman Coulter, Inc. representative.

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SAFETY DATA SHEET

Doc. ID: OSR6113-75 Rev. 04
Revised (year/month/day) 2015/04/23

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

1.1 Product Identifier

Product Name Calcium R2

Part Number Component of P/N OSR6113, OSR6213

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	EC REP Address
Beckman Coulter, Inc. 250 S. Kraemer Blvd Brea, CA 92821, U.S.A. Tel: 800-854-3633	Beckman Coulter Ireland Inc. Lismeehan O'Callaghan's Mills Co. Clare Ireland Tel: 353 (0)65 6831100

e-mail address SDSNT@beckman.com

Further information Contact:
Customer support Unit, Beckman Coulter Ireland Inc.
Technical Service Department Tel. +001-800-854-3633 (PST)
E-mail CC_Support.ie@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

Tel +353 (0)65 683 1170; 08:00 - 16:30 hrs Mon-Thur, 08:00 - 15:30 hrs Fri (GMT) Tel +001-800-223-0130 (PST)

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

Yellow; Clear; Liquid; Mild odor

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

Skin Corrosion Category 1

Eye Damage Category 1

Classification according to EC Directives 1999/45/EC and 67/548/EEC

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

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Section 2 Hazards Identification (Continued)

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

Hydrochloric Acid...%

Pictogram



Signal Word

DANGER

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

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-67/548/EEC**	**EU 1272/2008 CLP/GHS**	**GHS**	

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Section 3 Composition and Information on Ingredients (Continued)

Hydrochloric Acid...% CAS # 7647-01-0 EINECS # 231-595-7 Index # 017-002-01-X	< 0.2	C;R34-37	Acute Tox. Oral 4 STOT SE 3 Skin Corr. 1B H302; H314; H335	Acute Tox. Oral 4 STOT SE 3 Skin Corr. 1B H302; H314; H335	

See section 8 for available Occupational exposure limits
See Section 15 for additional regulatory information
See Section 16 for hazard class, hazard statements and risk phrase description

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 immediately and obtain medical attention.

Eye Contact — If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.

Skin Contact — In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.

Ingestion — If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 Toxicological Information for more detailed health information.

4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

Section 5 Fire Fighting Measures

Flammable Properties — Nonflammable aqueous solution.

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.

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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.
Avoid inhaling, ingesting, and contact with eyes and skin.

6.2 Environmental Precautions

Contain spill to prevent migration.
Do not allow the undiluted product to enter sewers/surface or ground water.

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 2 to 25°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

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	5 ppm TWA; 8 mg/m3 TWA; 10 ppm STEL; 15 mg/m3 STEL

IOELVs

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

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Section 8 Exposure Controls and Personal Protection (Continued)

NIOSH

Hydrochloric Acid...% CAS # 7647-01-0	50 ppm IDLH
Japan	None established

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	Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 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)**	Not determined
Color	Yellow	**Solubility**	
Transparency	Clear	**Water**	Not miscible
Odor	Mild odor	**Organic**	Not determined
pH	1.4	**Partition coefficient: n-octanol/water**	Not determined
Freezing Point	Similar to water, approximately 0 °C	**Auto-ignition Temp.**	Product is not selfigniting
Boiling Point	Similar to water, approximately 100 °C	**Decomposition Temperature**	Not determined
Flash Point	Not applicable	**Percent Volatiles**	Not applicable
Evaporation Rate	Not determined	**Vapor Pressure**	Similar to water, approximately 23 hPa
Flammability (Solid, Gas)	Not applicable	**Viscosity**	Not determined
Flammability Limits	Not applicable	**Explosive Properties**	Not applicable
Vapor Density	Not determined	**Oxidizing Properties**	Not applicable

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Section 9 Physical and Chemical Properties (Continued)

Odor Threshold Hydrochloric Acid...% no geometric mean air odor threshold

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 Avoid contact with incompatible materials.

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 — Inhalation LC50 Rat 3124 ppm 1 h; Oral LD50 Rat 700 mg/kg; Dermal LD50 Rabbit >5010 mg/kg

Primary Routes of Exposure Eye contact, ingestion, inhalation, and skin contact.

Skin Corrosion/Irritation Contact may cause skin burns.

Serious eye damage/eye irritation Contact may cause serious eye damage.

Respiratory/skin sensitization No data available.

Carcinogenicity No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

Germ cell mutagenicity No data available

Reproductive Toxicity No data available.

Specific target organ toxicity – single exposure

No data available.

Specific target organ toxicity – repeated exposure

No data available.

Aspiration hazard No data available.

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Section 11 Toxicological Information (Continued)

Other Information No data 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 No further relevant information available.

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.

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.

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 07 - chemicals other than those mentioned in 18 01 06. Dispose in accordance with national, state and local waste regulations.

Section 14 Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

Section 15 Regulatory Information

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

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Section 15 Regulatory Information (Continued)

US Federal and State Regulations

SARA 313 Hydrochloric Acid...% is subject to reporting requirements of Section 313, Title III of SARA. 1.0 % de minimis concentration (acid

CERCLA RG's, 40 CFR 302.4 Hydrochloric Acid...% is listed.

California Proposition 65 No ingredients listed.

Massachusetts MSL Hydrochloric Acid...% is listed.

New Jersey Dept. of Health RTK List

Hydrochloric Acid...% is listed.

Pennsylvania RTK Hydrochloric Acid...% is listed.

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.

No ingredients listed.

According to EC Directives (1999/45/EC and 67/548 EEC)

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

Canada

This product is exempt from WHMIS label and SDS requirements.

PIN Not applicable

Ingredients on Ingredient Disclosure List

8-Hydroxyquinoline
Hydrochloric Acid...%

Ingredients with unknown toxicological properties

Product is exempt

15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out.

Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.

Section 16 Other Information

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

Revision Changes Updated to GHS.

Hazard Class, hazard statements and risk phrase description from section 3

C - Corrosive
R34 Causes burns.
R37 Irritating to respiratory system.

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Section 16 Other Information (Continued)

	Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4
	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.
Abbreviations and Acronyms	ACGIH - American Conference of Governmental Industrial Hygienists
	ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road
	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 - Internal Agency for Research on Cancer
	IATA - International Air Transport Association
	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

For further information, please contact your local Beckman Coulter, Inc. representative.

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