



MATERIAL SAFETY DATA SHEET

DC-CAL Calibrator (Human)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: DC-CAL Calibrator (Human)

Synonym(s): DC-Cal Calibrator; DC-Cal Multi-Analyte Calibrator

Product Use: Component of DC-CAL kit (catalog # SE-035). For in vitro diagnostic use in calibration. For In Vitro Diagnostic Use Only.

Description: Lyophilized powder mixture containing human serum, salts, buffers, and trace amounts of enzymes.

Corporate Headquarters

Genzyme Corporation

500 Kendall Street
Cambridge, MA 02142
USA

Phone: 617-252-7500

Distributor

Genzyme Diagnostics

50 Gibson Drive
Kings Hill, West Malling
Kent, ME19 4AF
UK

Phone: 44 (0) 1732 220022

Distributor

Genzyme Diagnostics P.E.I. Inc.

70 Watts Ave.
Charlottetown, PE C1E 2B9
CANADA

Phone: 800-332-1042

Distributor

Genzyme Diagnostics

31 New York Avenue
Framingham, MA 01701-9322
USA

Phone: 800-332-1042

Emergency Telephone Numbers

Genzyme (U.S.): 617-562-4555

CHEMTREC (U.S.): 800-424-9300

CHEMTREC (Outside U.S.): 703-527-3887

2. HAZARDS IDENTIFICATION

Precautionary Statements:

CAUTION! The chemical, physical and toxicological properties of this preparation have not been thoroughly characterized. May cause irritation to skin, eyes and respiratory tract. May be harmful if inhaled, absorbed or swallowed. Avoid contact with eyes and skin. Do not ingest or inhale. The human serum in this preparation was tested by FDA-approved methods and found to be negative for the presence of hepatitis B virus surface antigen (HBsAg), human immunodeficiency virus (HIV) 1 & 2 and hepatitis C virus (HCV). However, because no test method can provide complete assurance that infectious agents are absent, this product should be handled as a potentially biohazardous material in accordance with universal/standard precautions. Preparation appearance: off-white lyophilized powder.

Routes of Exposure:

Occupational exposure routes may include eye contact, skin contact, skin absorption and inhalation.

Potential Health Effects:

Inhalation	No data available. Inhalation may cause respiratory tract irritation and may result in systemic effects.
Eye	No data available. Eye exposure may cause irritation, redness and watering.
Skin	No data available. Skin contact may be irritating. Possible systemic effects from skin absorption are unknown.
Ingestion	No data available.
Chronic Effects	No data available.
Target Organs	Unknown.



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Regulatory Status:

This preparation is classified as hazardous under U.S. OSHA 29 CFR 1910.1200; E.C. Directive 1999/45/EC; Canadian R.S. 1985, c. H-3; U.K. CHIP 2002 No. 1689; and/or U.N. GHS ST/SG/AC 10/30. Refer to Sec. 15, Regulatory Information, for details regarding hazard classification.

None of the components present in this preparation at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Potential Environmental Effects:

No data available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS #	EC #	% (wt/wt)
Human serum EC R-Phrases: None	Not Assigned EC Hazard Class: None	Not Assigned	50 - 75
Sodium sulphate EC R-Phrases: None	7757-82-6 EC Hazard Class: None	231-820-9	5 - 10
Sodium chloride EC R-Phrases: None	7647-14-5 EC Hazard Class: None	231-598-3	5 - 10
Lithium chloride EC R-Phrases: R22, R36/38	7447-41-8 EC Hazard Class: Xn	231-212-3	5 - 10
Bilirubin EC R-Phrases: None	635-65-4 EC Hazard Class: None	211-239-7	1 - 5
Cholesterol, bovine-source EC R-Phrases: None	57-88-5 EC Hazard Class: None	200-353-2	1 - 5
Triglyceride extract EC R-Phrases: None	Not Assigned EC Hazard Class: None	Not Assigned	1 - 5
D-glucose EC R-Phrases: None	50-99-7 EC Hazard Class: None	200-075-1	1 - 2
Urea EC R-Phrases: None	57-13-6 EC Hazard Class: None	200-315-5	1 - 2
Calcium chloride dihydrate EC R-Phrases: None	10035-04-8 EC Hazard Class: None	233-140-8	0.1 - 1
Potassium chloride EC R-Phrases: R36	7447-40-7 EC Hazard Class: Xi	231-211-8	0.1 - 1
Potassium phosphate dibasic, anhydrous EC R-Phrases: None	7758-11-4 EC Hazard Class: None	231-834-5	0.1 - 1
Magnesium chloride hexahydrate EC R-Phrases: None	7791-18-6 EC Hazard Class: None	Not Assigned	0.1 - 1



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4. FIRST AID MEASURES

General Advice:

In the event of occupational exposure, follow company-specific bloodborne pathogen post-exposure requirements.

Inhalation:

If inhaled, move from exposure area to fresh air. Seek medical attention if breathing becomes difficult or if cough or other symptoms develop.

Eye Contact:

Immediately flush eyes with plenty of tepid water for 15 minutes while separating eyelids with fingers. Remove contact lenses if worn. Obtain medical attention if needed or if symptoms, such as redness or irritation persist.

Skin Contact:

In case of contact, immediately flush skin with copious amounts of cool water and remove contaminated clothing. Obtain medical attention if needed or if irritation or other symptoms develop.

Ingestion:

In case of ingestion, contact a poison control center and seek immediate medical attention.

5. FIRE FIGHTING MEASURES

Flammable Properties:

Material may burn when exposed to sufficient heat.

Suitable Extinguishing Media:

Use extinguishing media suitable for surrounding fire, such as carbon dioxide, chemical foam, dry chemical or water spray.

Unsuitable Extinguishing Media:

Unknown.

Specific Hazards Arising from the Chemical:

Irritating or highly toxic gases may be generated by combustion.

Standard Protective Equipment and Precautions for Firefighters:

Firefighters should wear NIOSH-approved or equivalent Self-Contained Breathing Apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear Personal Protective Equipment (PPE) as indicated in Section 8. Avoid physical contact with material and avoid generating or inhaling dust. Ensure adequate ventilation. Wash hands thoroughly after handling.

Environmental Precautions:

No information available.

Methods and Materials for Containment and Clean-Up:

Do not dry sweep powder. Use HEPA-filtered vacuum, if available, otherwise wet mop to clean up a powder spill. Very slippery when wet. Decontaminate the spill site following standard procedures. Dispose of materials in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13.



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7. HANDLING AND STORAGE

Handling:

Follow universal/standard precautions when handling this material. See Section 8, Engineering Controls. Minimize contact and contamination of personal clothing and skin. Wash hands thoroughly after handling.

Storage:

Store at 2 - 8°C (36 - 46°F). Do not store with incompatible substances; see Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

There are no ACGIH, NIOSH, OSHA or country-specific occupational exposure limits currently established for components present in this preparation at concentrations equal to or greater than 1% (0.1% if carcinogen).

Engineering Controls:

Preparation and handling of this preparation should be performed in accordance with universal/standard precautions. Facilities storing or using this preparation should be equipped with an eyewash fountain.

Personal Protective Equipment (PPE):

Respiratory	A respirator is not required under normal conditions of use.
Eye/Face	Wear appropriate protective chemical safety glasses or goggles.
Skin	Wear appropriate protective clothing, such as a lab coat or other long-sleeved garment over clothing to minimize contact and contamination of clothing. Remove contaminated clothing promptly.
Gloves	Wear chemical resistant protective gloves. Change gloves regularly or immediately if they are contaminated, torn or punctured.
General	Follow company-specific safety procedures.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white lyophilized powder	pH:	7.0 - 8.3 (in aqueous solution)
Odor:	Slight odor	Solubility:	Water-miscible
Specific Gravity:	Not available	Vapor Pressure:	Not available
Boiling Point:	Not applicable	Partition Coefficient (n-octanol/water):	Not available
Melting Point:	Not available	Vapor Density:	Not applicable
Freezing Point:	Not applicable		
Flammability/Explosivity Limits in Air, Lower:	Not applicable		
Flammability/Explosivity Limits in Air, Upper:	Not applicable		
Auto-Ignition Temperature:	Not available		
Flash Point:	Not applicable		



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10. STABILITY AND REACTIVITY

Chemical Stability:

Unknown.

Conditions to Avoid:

Unknown.

Incompatible Materials:

Unknown.

Hazardous Decomposition Products:

Thermal decomposition may lead to release of irritating gases and vapors.

Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects:

Toxicology Data - Selected LD50s and LC50s

Bilirubin	635-65-4	Oral LD50 Mouse: >15 g/kg
D-glucose	50-99-7	Oral LD50 Rat: 25800 mg/kg
Lithium chloride	7447-41-8	Oral LD50 Rat: 526 mg/kg
Magnesium chloride hexahydrate	7791-18-6	Oral LD50 Rat: 8100 mg/kg
Potassium chloride	7447-40-7	Oral LD50 Rat: 2600 mg/kg
Sodium chloride	7647-14-5	Inhalation LC50 Rat: >42 g/m ³ /1H; Oral LD50 Rat: 3 g/kg; Dermal LD50 Rabbit: >10 g/kg
Sodium sulphate	7757-82-6	Oral LD50 Rat: >10000 mg/kg
Urea	57-13-6	Oral LD50 Rat: 8471 mg/kg; Dermal LD50 Rat: 8200 mg/kg

Local Effects:

No data available.

Chronic Effects:

Unknown.

Carcinogenicity:

No data available.

Mutagenicity:

No data available.

Teratogenicity:

No data available.

Reproductive Effects:

No data available.

Sensitization:

No data available.

12. ECOLOGICAL INFORMATION



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Ecotoxicity:

Ecotoxicity - Freshwater Algae Data

Potassium chloride 7447-40-7 72 Hr EC50 Scenedesmus subspicatus: 2500 mg/L

Ecotoxicity - Freshwater Fish Species Data

Potassium chloride 7447-40-7 96 Hr LC50 Lepomis macrochirus: 2010 mg/L [static]
Sodium chloride 7647-14-5 96 Hr LC50 Lepomis macrochirus: 9675 mg/L [flow-through];
96 Hr LC50 Lepomis macrochirus: 12946 mg/L [static]; 96 Hr
LC50 Pimephales promelas: 7650 mg/L [static]

Sodium sulphate 7757-82-6 24 Hr LC50 Pimephales promelas: 13500 mg/L; 96 Hr LC50
Lepomis macrochirus: 13 mg/L [static]

Urea 57-13-6 96 Hr LC50 Leuciscus idus: >3810 mg/L

Ecotoxicity - Microtox Data

Urea 57-13-6 5 min EC50 Photobacterium phosphoreum: 23914 mg/L

Ecotoxicity - Water Flea Data

Potassium chloride 7447-40-7 48 Hr EC50 Daphnia magna: 825 mg/L

Sodium chloride 7647-14-5 48 Hr EC50 Daphnia magna: 1000 mg/L

Sodium sulphate 7757-82-6 96 Hr EC50 water flea: 4547 mg/L; 48 Hr EC50 Daphnia
magna: 2564 mg/L

Urea 57-13-6 24 Hr EC50 Daphnia magna straus: >10000 mg/L

Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Environmental Media:

No data available.

13. DISPOSAL CONSIDERATIONS

Methods of Disposal:

Dispose of unused product, spilled material and waste in accordance with all applicable federal, state, local and provincial environmental and hazardous waste regulations.

Waste Classification:

U.S. - California - 22 CCR - Presumed Extremely Hazardous Wastes

Lithium chloride 7447-41-8 Corrosive; Ignitable; Reactive

14. TRANSPORT INFORMATION

Basic Shipping Description:

Not classified as dangerous goods. Not regulated per IATA and DOT regulations.



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15. REGULATORY INFORMATION

US Federal Regulations:

This preparation is a component of an FDA-regulated in vitro diagnostic device.

Inventory - United States - Section 8(b) Inventory (TSCA)

Bilirubin	635-65-4	Present
Cholesterol, bovine-source	57-88-5	Present
D-glucose	50-99-7	Present
Lithium chloride	7447-41-8	Present
Magnesium chloride hexahydrate	7791-18-6	XU
Potassium chloride	7447-40-7	Present
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Sodium chloride	7647-14-5	Present
Sodium sulphate	7757-82-6	Present
Urea	57-13-6	Present

US State Regulations:

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Magnesium chloride hexahydrate	7791-18-6	[present]
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International Regulations:

If approved for European Communities use, this product is regulated under the In Vitro Diagnostic Medical Devices Directive (98/79/EC).

Canada - WHMIS - Classifications of Substances

Calcium chloride dihydrate	10035-04-8	D2B
D-glucose	50-99-7	Uncontrolled product according to WHMIS classification criteria
Magnesium chloride hexahydrate	7791-18-6	Uncontrolled product according to WHMIS classification criteria
Potassium chloride	7447-40-7	Uncontrolled product according to WHMIS classification criteria (including 23.8%)
Potassium phosphate dibasic, anhydrous	7758-11-4	Uncontrolled product according to WHMIS classification criteria
Sodium chloride	7647-14-5	Uncontrolled product according to WHMIS classification criteria
Sodium sulphate	7757-82-6	Uncontrolled product according to WHMIS classification criteria
Urea	57-13-6	Uncontrolled product according to WHMIS classification criteria

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Potassium chloride	7447-40-7	ID Number 230, hazard class 1 - low hazard to waters
Sodium chloride	7647-14-5	ID Number 270, hazard class 1 - low hazard to waters
Sodium sulphate	7757-82-6	ID Number 286, hazard class 1 - low hazard to waters
Urea	57-13-6	ID Number 118, hazard class 1 - low hazard to waters

Inventory - Australia - Inventory of Chemical Substances (AICS)

Bilirubin	635-65-4	Present
Calcium chloride dihydrate	10035-04-8	Present
Cholesterol, bovine-source	57-88-5	Present
D-glucose	50-99-7	Present
Lithium chloride	7447-41-8	Present
Magnesium chloride hexahydrate	7791-18-6	Present
Potassium chloride	7447-40-7	Present
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Sodium chloride	7647-14-5	Present
Sodium sulphate	7757-82-6	Present
Urea	57-13-6	Present

Inventory - Canada - Domestic Substances List (DSL)

Bilirubin	635-65-4	Present
Cholesterol, bovine-source	57-88-5	Present
D-glucose	50-99-7	Present
Lithium chloride	7447-41-8	Present
Magnesium chloride hexahydrate	7791-18-6	Mg
Potassium chloride	7447-40-7	Present
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Sodium chloride	7647-14-5	Present
Sodium sulphate	7757-82-6	Present
Urea	57-13-6	Present

Inventory - China

Bilirubin	635-65-4	Present
Calcium chloride dihydrate	10035-04-8	Present
Cholesterol, bovine-source	57-88-5	Present
D-glucose	50-99-7	Present
Lithium chloride	7447-41-8	Present
Magnesium chloride hexahydrate	7791-18-6	Present
Potassium chloride	7447-40-7	Present
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Sodium chloride	7647-14-5	Present



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DC-CAL Calibrator (Human)

Inventory - China

Sodium sulphate	7757-82-6	Present
Urea	57-13-6	Present

Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Bilirubin	635-65-4	211-239-7
Cholesterol, bovine-source	57-88-5	200-353-2
D-glucose	50-99-7	200-075-1
Lithium chloride	7447-41-8	231-212-3
Magnesium chloride hexahydrate	7791-18-6	231-104-6; Mg
Potassium chloride	7447-40-7	231-211-8
Potassium phosphate dibasic, anhydrous	7758-11-4	231-834-5
Sodium chloride	7647-14-5	231-598-3
Sodium sulphate	7757-82-6	231-820-9
Urea	57-13-6	200-315-5

Inventory - Japan Existing and New Chemical Substances (ENCS)

Bilirubin	635-65-4	9-1051
Calcium chloride dihydrate	10035-04-8	1-176
Cholesterol, bovine-source	57-88-5	4-1301
D-glucose	50-99-7	8-46
Lithium chloride	7447-41-8	1-231
Magnesium chloride hexahydrate	7791-18-6	1-233
Potassium chloride	7447-40-7	1-228
Potassium phosphate dibasic, anhydrous	7758-11-4	1-452
Sodium chloride	7647-14-5	1-236
Sodium sulphate	7757-82-6	1-501
Urea	57-13-6	2-1732

Inventory - Korea - Existing and Evaluated Chemical Substances

Cholesterol, bovine-source	57-88-5	KE-05945
D-glucose	50-99-7	KE-17727
Lithium chloride	7447-41-8	KE-22552
Magnesium chloride hexahydrate	7791-18-6	KE-22673
Potassium chloride	7447-40-7	KE-29086
Potassium phosphate dibasic, anhydrous	7758-11-4	KE-12167
Sodium chloride	7647-14-5	KE-31387
Sodium sulphate	7757-82-6	KE-31609
Urea	57-13-6	KE-35144

Canadian Hazardous Products:

WHMIS Status Exempt

European Communities Dangerous Substances/Preparations:

EC Hazard Class None

Risk Phrases None

Safety Phrases None

16. OTHER INFORMATION

Further Information:

This MSDS has been prepared in accordance with the ANSI Z400.1 format. Every effort has been made to adhere to the hazard criteria and content requirements of the U.S. OSHA Hazard Communication Standard, Canadian Controlled Products Regulation (CPR), UK Chemical Hazard Information and Packaging Regulations, European Communities REACH Regulation, and UN Globally Harmonized System of Classification and Labelling of Chemicals.



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DC-CAL Calibrator (Human)

MSDS Origination Date: September 05, 2008

Version #: 3

Revision Date: October 29, 2008

Disclaimer:

The information above is provided in good faith. It is believed to be accurate and represents the best information currently available to us. HOWEVER, WE MAKE NO WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER TYPE, EXPRESSED OR IMPLIED, WITH RESPECT TO PRODUCTS DESCRIBED OR DATA OR INFORMATION PROVIDED, AND WE ASSUME NO LIABILITY RESULTING FROM THE USE OF SUCH PRODUCTS, DATA OR INFORMATION. Users should make their own investigations to determine the suitability of the information for their particular purposes, and the user assumes all risk arising from their use of the material. The user is required to comply with all laws and regulations relating to the purchase, use, storage and disposal of the material, and must be familiar with and follow generally accepted safe handling procedures. In no event shall Genzyme be liable for any claims, losses, or damages of any individual or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Genzyme has been advised of the possibility of such damages.



MATERIAL SAFETY DATA SHEET

DC-CAL Diluent

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: DC-CAL Diluent

Synonym(s): DC-Cal Multi-Analyte Diluent

Product Use: Component of DC-CAL kit (catalog # SE-035). For in vitro diagnostic use in calibration. For In Vitro Diagnostic Use Only.

Description: Aqueous sodium bicarbonate solution.

Corporate Headquarters

Genzyme Corporation

500 Kendall Street
Cambridge, MA 02142
USA

Phone: 617-252-7500

Distributor

Genzyme Diagnostics

50 Gibson Drive
Kings Hill, West Malling
Kent, ME19 4AF
UK

Phone: 44 (0) 1732 220022

Distributor

Genzyme Diagnostics P.E.I. Inc.

70 Watts Ave.
Charlottetown, PE C1E 2B9
CANADA

Phone: 800-332-1042

Distributor

Genzyme Diagnostics

31 New York Avenue
Framingham, MA 01701-9322
USA

Phone: 800-332-1042

Emergency Telephone Numbers

Genzyme (U.S.): 617-562-4555

CHEMTREC (U.S.): 800-424-9300

CHEMTREC (Outside U.S.): 703-527-3887

2. HAZARDS IDENTIFICATION

Precautionary Statements:

The chemical, physical and toxicological properties of this preparation have not been thoroughly characterized. Avoid contact with eyes and skin. Do not ingest or inhale. Preparation appearance: clear, colorless liquid.

Routes of Exposure:

Occupational exposure routes may include eye and skin contact.

Potential Health Effects:

Inhalation	No data available. Inhalation is not expected to produce adverse health effects.
Eye	No data available. Eye exposure is not expected to cause irritation.
Skin	No data available. Skin contact is not expected to cause irritation.
Ingestion	No data available. Ingestion is not expected to be harmful and is an unlikely route for occupational exposure.
Chronic Effects	No data available.
Target Organs	None expected.

Regulatory Status:

This preparation is not classified as hazardous under U.S. OSHA 29 CFR 1910.1200; E.C. Directive 1999/45/EC; Canadian R.S. 1985, c. H-3; U.K. CHIP 2002 No. 1689; and/or U.N. GHS ST/SG/AC 10/30.

None of the components present in this preparation at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.



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DC-CAL Diluent

Potential Environmental Effects:

None expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS #	EC #	% (wt/wt)
Water	7732-18-5	231-791-2	> 99
EC R-Phrases: None	EC Hazard Class: None		
Sodium bicarbonate	144-55-8	205-633-8	< 1
EC R-Phrases: None	EC Hazard Class: None		

4. FIRST AID MEASURES

Inhalation:

If inhaled, move from exposure area to fresh air. Seek medical attention if breathing becomes difficult or if cough or other symptoms develop.

Eye Contact:

Immediately flush eyes with plenty of tepid water for 15 minutes while separating eyelids with fingers. Remove contact lenses if worn. Obtain medical attention if needed or if symptoms, such as redness or irritation persist.

Skin Contact:

In case of contact, flush skin with copious amounts of cool water and remove contaminated clothing. Obtain medical attention if needed or if irritation or other symptoms develop.

Ingestion:

In case of ingestion, contact a poison control center or physician for instructions.

5. FIRE FIGHTING MEASURES

Flammable Properties:

Aqueous solution not considered a fire hazard.

Suitable Extinguishing Media:

Use extinguishing media suitable for surrounding fire, such as carbon dioxide, chemical foam, dry chemical or water spray.

Unsuitable Extinguishing Media:

Unknown.

Specific Hazards Arising from the Chemical:

None expected.

Standard Protective Equipment and Precautions for Firefighters:

Firefighters should wear NIOSH-approved or equivalent Self-Contained Breathing Apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear Personal Protective Equipment (PPE) as indicated in Section 8. Avoid physical contact with material. Wash hands thoroughly after handling.

Environmental Precautions:

No information available.



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DC-CAL Diluent

Methods and Materials for Containment and Clean-Up:

Absorb spill with inert material/sorbent. Decontaminate the spill site following standard procedures. Dispose of materials in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13.

7. HANDLING AND STORAGE

Handling:

Follow good laboratory hygiene practices. See Section 8, Engineering Controls. Minimize contact and contamination of personal clothing and skin. Wash hands thoroughly after handling.

Storage:

Store at 2 to 8°C (36 to 46°F).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

This preparation is aqueous and non-volatile and is not expected to require special ventilation measures. Facilities storing or using this preparation should be equipped with an eyewash fountain.

Personal Protective Equipment (PPE):

Respiratory	A respirator is not required under normal conditions of use.
Eye/Face	Wear appropriate protective chemical safety glasses.
Skin	Wear lab coat or other protective garments. Remove contaminated clothing promptly.
Gloves	Wear chemical resistant protective gloves.
General	Follow company-specific safety procedures.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless liquid	pH:	7.8 - 8.6 at 25°C
Odor:	Odorless	Solubility:	Water-soluble
Boiling Point:	Not available	Evaporation Rate:	Not available
Melting Point:	Not applicable	Vapor Pressure:	Not available
Freezing Point:	Not available	Partition Coefficient (n-octanol/water):	Not available
Viscosity:	Not available	Vapor Density:	Not available
Flammability/Explosivity Limits in Air, Lower:	Not available		
Flammability/Explosivity Limits in Air, Upper:	Not available		
Auto-Ignition Temperature:	Not applicable		
Flash Point:	Not available		

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable under ordinary conditions of use and storage. See Section 7.

Conditions to Avoid:

There are no physical conditions known to result in a hazardous situation.



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DC-CAL Diluent

Hazardous Decomposition Products:

None expected under normal conditions of use.

Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects:

No data available.

Local Effects:

No data available.

Chronic Effects:

No data available.

Carcinogenicity:

No data available.

Mutagenicity:

No data available.

Teratogenicity:

No data available.

Reproductive Effects:

No data available.

Sensitization:

No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

No data available.

Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Environmental Media:

No data available.

13. DISPOSAL CONSIDERATIONS

Methods of Disposal:

Dispose of unused product, spilled material and waste in accordance with all applicable federal, state, local and provincial environmental and hazardous waste regulations.

14. TRANSPORT INFORMATION

Basic Shipping Description:

Not classified as dangerous goods. Not regulated per IATA and DOT regulations.



MATERIAL SAFETY DATA SHEET
DC-CAL Diluent

15. REGULATORY INFORMATION

US Federal Regulations:

This preparation is a component of an FDA-regulated in vitro diagnostic device.

International Regulations:

If approved for European Communities use, this product is regulated under the In Vitro Diagnostic Medical Devices Directive (98/79/EC).

Canadian Hazardous Products:

WHMIS Status Exempt

European Communities Dangerous Substances/Preparations:

EC Hazard Class None

Risk Phrases None

Safety Phrases None

16. OTHER INFORMATION

Further Information:

This MSDS has been prepared in accordance with the ANSI Z400.1 format. Every effort has been made to adhere to the hazard criteria and content requirements of the U.S. OSHA Hazard Communication Standard, Canadian Controlled Products Regulation (CPR), UK Chemical Hazard Information and Packaging Regulations, European Communities REACH Regulation, and UN Globally Harmonized System of Classification and Labelling of Chemicals.

MSDS Origination Date: September 05, 2008

Version #: 3

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