


**BECKMAN****MATERIAL SAFETY DATA SHEET****Section 1 Company and Product Identification**

<b>Product Name</b>	Comprehensive Chemistry Control Serum (Human Origin)	Doc. ID 660400-75 AA Issued (day/month/year) 05/06/1998
<b>Part Number</b>	660400	
<b>Series Name</b>	Decision®	
<b>Manufacturer</b>	Beckman Instruments, Inc. 2500 Harbor Blvd. Fullerton, CA 92834-3100, U.S.A.	
<b>Distributor and Emergency Phone No.</b>	 Refer to attached list, Document ID: 472050, for local distributor and emergency phone numbers.	

**Section 2 Composition and Information on Ingredients**

Hazardous Ingredients:			Meets Hazardous Criteria:		
Chemical Name	CAS #	% by wt.	EU	US OSHA	WHMIS
Ethylene Glycol	107-21-1	≥ 25	Yes	Yes	No
See Section 15 Regulatory Information for additional information on ingredient hazard classifications.					

**Section 3 Hazards Identification**

<b>Emergency Overview</b>	<p style="text-align: center;"><b>Amber; Translucent; Liquid; Odorless Nonflammable aqueous solution. May be harmful or fatal if swallowed. Skin, eye and respiratory tract irritant. Contains human material.</b></p>		
<b>Physical Hazards</b>	No physical hazards were determined from a review of available literature.		
<b>Potential Health Effects Summary</b>	May cause irritation of respiratory tract, skin and eyes; central nervous system depression; severe kidney damage and reproductive effects. See Section 11 Toxicological Information for more detailed health information.		
<b>Product Hazard Classifications</b>	<b>EU:</b>  R22	<b>WHMIS:</b> Exempt	<b>US OSHA:</b> Hazardous

**Section 4 First Aid Measures**

<b>Inhalation</b>	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.
<b>Eye Contact</b>	If product is splashed in eyes, wash eyes under gently running water for 15 minutes or longer, making sure that the eyelids are held open. Obtain medical attention.

**Section 4 First Aid Measures (Continued)**

<b>Skin Contact</b>	In case of skin contact, flush with copious amounts of water for at least 15 minutes. Then gently wash skin with soap and water; rinse well. If product contacted broken skin, soak the wound area with a 1:10 dilution of fresh household bleach for 10 minutes. Rinse with water to remove residual bleach. (Remove contaminated clothing and disinfect with a 1:10 dilution of fresh household bleach.) Obtain medical attention.
<b>Ingestion</b>	If ingested, wash out mouth with water. Call a physician.

**Section 5 Fire Fighting Measures**

<b>Flash Point</b>	Not applicable
<b>Flammable Limits</b>	Not applicable
<b>Autoignition Temp.</b>	Not available
<b>Extinguishing Media</b>	Use extinguishing media suitable for surrounding fire.
<b>Special Fire and Explosion Hazards</b>	No special hazards determined.
<b>Hazardous Combustion Products</b>	Due to the composition and volume of this product, combustion products generated from it are not expected to present a significant hazard.
<b>Protective Equipment for Firefighters</b>	Self-contained breathing apparatus is recommended for firefighters.

**Section 6 Accidental Release Measures**

<b>Personal Precautions</b>	Use universal precautions during clean up procedures.
<b>Spill and Leak Procedures</b>	As a precautionary measure, treat spilled material with a 1:10 bleach/water solution. Absorb liquid and place in container suitable for disposal. Avoid generation of aerosols during clean up. Comply with applicable waste disposal regulations.
<b>Environmental Precautions</b>	Contain spill to prevent migration.

**Section 7 Handling and Storage**

<b>Handling Precautions</b>	This product should be handled as though capable of transmitting infectious diseases. Universal precautions should be followed when using this product.
<b>Recommended Storage Conditions</b>	Keep away from incompatible material. To maintain efficacy, store according to the instructions in the product labeling.

**Section 8 Exposure Controls and Personal Protection****Exposure Limits****US OSHA:**

Ethylene Glycol	C 50 ppm; C 125 mg/m <sup>3</sup>
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## Section 8 Exposure Controls and Personal Protection (Continued)

<b>ACGIH:</b>	
Ethylene Glycol	aerosol: 100 mg/m <sup>3</sup>
<b>DFG MAK:</b>	
Ethylene Glycol	10 ppm MAK; 26 mg/m <sup>3</sup> MAK; 2 x normal MAK (5 min momentary value); don't exceed 8 times during shift; danger of cutaneous absorption
<b>Engineering Controls</b>	Use in well ventilated area.
<b>Respiratory Protection</b>	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.
<b>Eye Protection</b>	Safety glasses or chemical goggles should be worn to prevent eye contact.
<b>Skin Protection</b>	Impervious gloves, such as latex or equivalent, should be worn to prevent skin contact.

## Section 9 Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Amber
<b>Transparency</b>	Translucent
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Not applicable
<b>pH</b>	8.5
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Specific Gravity</b>	1.057 @20°C
<b>Vapor Pressure</b>	Not available
<b>Vapor Density</b>	Not available
<b>Evaporation Rate</b>	Not applicable
<b>Solubility</b>	
Water	
Organic	

## Section 10 Stability and Reactivity

<b>Stability</b>	Stable under normal temperatures and pressures.
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## Section 10 Stability and Reactivity (Continued)

<b>Hazardous Incompatibilities</b>	Chromium Trioxide Perchloric Acid Permanganates Strong Oxidizers Peroxides Strong acids Strong bases
<b>Hazardous Decomposition Products</b>	When stored as labeled, no known hazardous decomposition products are formed during the shelf-life of this product.
<b>Conditions to Avoid</b>	Keep away from incompatible material.

## Section 11 Toxicological Information

<b>Toxicity Data for Hazardous Ingredients</b> Ethylene Glycol	Dermal LD50 Rabbit: 9530 uL/kg; Oral LD50 Mouse: 5500 mg/kg; Inhalation LC50Rat: 10876 mg/kg; Oral LD50 Rat: 4700 mg/kg
<b>Primary Routes of Exposure</b>	Common routes of entry include inhalation, ingestion and eye/skin contact. Specific paths of concern for potentially infectious materials are skin puncture, contact with broken skin, contact with mucous membranes and inhalation of aerosolized material.
<b>Potential Effects of Acute Exposure</b>	Exposure to ethylene glycol may result in eye and respiratory tract irritation. Inhalation of mists and absorption through skin may cause central nervous system depression. Ingestion may cause severe central nervous system depression, kidney failure, heart failure or respiratory arrest. This product contains material of human origin and should be considered potentially infectious. This product contains material of human origin and should be considered as potentially capable of transmitting infectious diseases.
<b>Potential Effects of Chronic Exposure</b>	Prolonged or repeated exposure to ethylene glycol may result in mild irritation and central nervous system depression; symptoms may include throat irritation, drowsiness, headache and backache. Contact with skin and eyes may result in dermatitis and conjunctivitis with red, scaly skin and inflamed eyes. Animal studies indicate repeated ingestion of small amounts can cause severe kidney damage.
<b>Symptoms of Overexposure</b>	Symptoms of overexposure may include: eye, skin, nose and throat irritation; headache, weakness, dizziness, confusion, nausea and vomiting. Severe cases may exhibit difficulty in breathing, irregular heartbeat, reddish colored skin, unconscious, convulsions, coma and death. Symptoms may be delayed for several hours after exposure.
<b>Carcinogenicity</b>	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.
<b>Other Effects</b>	Reproductive effects have been reported in animal studies.
<b>Conditions Aggravated by Exposure</b>	Individuals with central nervous system, cardiovascular, or kidney disorders may find these conditions aggravated by exposure to this product.

## Section 12 Ecological Information

<b>Ecotoxicity</b>	Toxic to fish and other water organisms.
<b>Biodegradability</b>	No information available.

**Section 12 Ecological Information (Continued)**

<b>Mobility</b>	No information available.
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**Section 13 Disposal Considerations**

<b>Waste Disposal</b>	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.
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**Section 14 Transport Information**

Transportation of this product is not regulated under ICAO, IATA, US DOT, European ADR or Canadian TDG.
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**Section 15 Regulatory Information****US Federal and State Regulations**

SARA 313	Ethylene Glycol is subject to reporting requirements of Section 313, Title III of SARA.
CERCLA RG's, 40 CFR 302.4	No ingredients listed
California Proposition 65	No ingredients listed
Massachusetts MSL	Ethylene Glycol is listed.
New Jersey Dept. of Health RTK List	Ethylene Glycol is listed.
Pennsylvania RTK	Ethylene Glycol is listed.

**EU**

Dangerous Ingredients:	EINECS Number	Classification	Risk and Safety Phrases
Ethylene Glycol:	2034-73-3	Xn  Harmful	R22 Harmful if swallowed.

**Section 16 Other Information**

For further information, please contact your local Beckman representative.
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