BioLife Solutions®
POWERING THE PRESERVATION SCIENCES

3303 Monte Villa Parkway, Suite 310
Bothell, WA 98021 USA
T: 425.402.1400 | F: 425.402.1433
www.BioLifeSolutions.com

MATERIAL SAFETY DATA SHEET

Product Name: CryoStor® CS5

MSDS Date: Nov. 14, 2011

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	CryoStor® CS5
Synonyms:	CryoStor, CS5
Product Codes:	205102, 205104, 205373, 610202
Manufacturer:	BioLife Solutions, Inc.
Address:	3303 Monte Villa Pkwy, Suite 310, Bothell, WA 98021 USA
Emergency Phone:	425.402.1400
Other Calls:	866-4-BIOLIFE (866-424-6543)
Fax:	425-402-1433
Product Use:	Ultra low temperature (-70^{o} to -196^{o}C) storage of biological material (cells, tissues and organs)

SECTION 2: COMPOSITION / INFORMATION ON KNOWN HAZARDOUS INGREDIENTS

Ingredient: Dimethyl Sulfoxide (DMSO)
CAS NO: 67-68-5 MF: C2H6OS %Vol 5% (vol/vol)
For further information refer to DMSO MSDS – Gaylord Chemical (DMSO-USP). All other ingredients in the proportions used are considered non-hazardous by regulating bodies worldwide.

SECTION 3: HAZARDS IDENTIFICATION

Routes of Entry:	Oral, Skin, Eyes			
Potential Health Effects:	Eyes:	NA	Skin:	NA
	Ingestion:	Nausea	Inhalation:	NA
Acute Health Hazards:	NA			
Chronic Health Hazards:	NA			
Medical Conditions Generally Aggravated by Exposure:	Not known			
Carcinogenicity:	None of the components at concentrations equal or greater than 0.1% are listed by NTP, IARC, or OSHA as a carcinogen. To the best of our knowledge, the chemical, physical, toxological, and carcinogenic properties of DMSO have not been thoroughly investigated.			

SECTION 4: FIRST AID MEASURES

Eyes:	Flush with running water for >10 minutes.
Skin:	Wash skin thoroughly with soap and water. Wash contaminated clothing before reuse.
Ingestion:	If swallowed, give two glasses of water and induce vomiting. Never give anything to an unconscious person. Call a physician.
Inhalation:	NA

Physician/First Aid Provider Notes: CryoStor is intended for low temperature preservation of cells, tissues and organs.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability:	Non-flammable
Method Used:	NA
Extinguishing Media:	Use any suitable media for extinguishing material supporting the fire
Special Fire Fighting Procedures:	Standard measures apply
Unusual Fire & Explosion Hazards:	Not a fire or explosion hazard

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Standard non-hazardous chemical spill clean-up measures apply. Use appropriate protective equipment during cleanup. Soak up spill with absorbent material.

SECTION 7: HANDLING AND STORAGE

Handling:	Use good laboratory practices while handling. Avoid inhaling vapors or mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling.
Storage:	Store between 2-8°C in the dark. Store in accordance with federal, state, and local regulations. Do not consume food, drink, or tobacco in areas where they may become contaminated with this material. Do not freeze solution.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:	NA
Ventilation:	NA
Respiratory Protection:	This material does not have established workplace exposure limits. Wear an appropriate NIOSH/MSHA approved air purifying respirator or positive pressure air supplied respirator in situations where a respirator is judged appropriate to prevent inhalation of vapors or mist.
Eye Protection:	Chemical laboratory safety goggles or as recommended by internal laboratory.
Skin Protection:	Rubber gloves or as recommended by internal laboratory.
Other Protective Clothing or Equipment:	Wear impervious clothing such as apron, boots, jumpsuit, or whole body suit as appropriate to avoid exposure.
Work Hygienic Practices:	Use good laboratory precautions and practices. Wash hands following handling of material.
Exposure Guidelines:	Wash exposed area thoroughly. Refer to Section 4 First Aid Measures for details.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid	Vapor Density (Air=1):	NA
Odor:	Slight odor	Specific Gravity (H2O=1):	NA
Physical State:	Liquid	Evaporation Rate:	NA
pH as Supplied:	7.5 to 7.7	Solubility in Water:	Soluble
Boiling Point:	NA	Percent Solids by Weight:	NA
Melting Point:	0°C	Percent Volatile:	NA
Freezing Point:	-4°C	Volatile Organic Compounds (VOC):	None
Vapor Pressure:	NA		

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid (Stability):	Storage and use of product at elevated temperatures >22°C
Incompatibility (Material to Avoid):	Acid chlorides, phosphorous halides, strong acids, strong oxidizing agents, strong reducing agents
Hazardous Decomposition or By-Products:	Carbon monoxide, carbon dioxide, sulfur oxides
Hazardous Polymerization:	NA
Conditions to Avoid (polymerization):	NA

SECTION 11: DISPOSAL CONSIDERATIONS

Waste Disposal Method:	Disposal with non-hazardous materials. Observe all federal, state, and local environmental regulations.

SECTION 12: TRANSPORT INFORMATION

US Department of Transportation:	Proper Shipping Name: CryoStor®	Hazard Class:	NA

SECTION 13: OTHER INFORMATION

Other Information:	The data on this Material Safety Data Sheet relate only to the specific material herein and do not relate to use in combination with any other material or process.
Preparation Information:	This information is believed to be accurate and represents the best information available to date.
Disclaimer:	We make no warranty or assume any liability from its use. Users should make their own investigations to determine the suitability of the information.