



# BioLife Solutions, Inc.

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## MATERIAL SAFETY DATA SHEET

CryoStor™ CS-5

MSDS DATE: 04/01/2007

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CryoStor CS5  
SYNONYMS: CryoStor, CS5  
PRODUCT CODES: 61020  
MANUFACTURER: BioLife Solutions Inc.  
ADDRESS: 171 Front Street, Owego, NY 13827  
EMERGENCY PHONE: (866) 4BIOLIFE  
OTHER CALLS: (607) 687-4487  
FAX PHONE: (607) 687-6683  
PRODUCT USE: Ultra low temperature (-70 to -196°C) storage of biological material (cells and tissues)

Supplier: In Vitro Technology Pty  
7-9 Summit Road  
Noble Park  
Melbourne Vic 3174  
Phone: 0061397713700  
Fax: 0061397713720  
Emergency Info: Poisons Info Centre:131126

### SECTION 2: COMPOSITION/INFORMATION ON KNOWN HAZARDOUS INGREDIENTS

INGREDIENT:  
Dimethyl Sulfoxide (DMSO)  
CAS NO.: 67-68-5 ME.: C<sub>2</sub>H<sub>6</sub>OS % Vol.: 5% (vol./vol.)  
For further information refer to DMSO MSDS – Gaylord Chemical (DMSO - USP)

### 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, toxicological, and carcinogenic properties of DMSO have not been thoroughly investigated

### SECTION 4: FIRST AID MEASURES

EYES: Flush with running water for >10 min  
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

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:  
CryoStor is intended for low temperature preservation of cells and tissues

### 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 AND EXPLOSION HAZARDS: Not a fire or explosion hazard

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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ACCIDENTAL RELEASE MEASURES: Standard non-hazardous chemical spill clean up measures apply. Use appropriate protective equipment during cleanup. Soak up spill with absorbent material.

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**SECTION 7: HANDLING AND STORAGE**

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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.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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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

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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APPEARANCE: Clear liquid  
ODOR: Slight Odor  
PHYSICAL STATE: Liquid  
pH AS SUPPLIED: 7.5 - 7.7  
BOILING POINT: NA  
MELTING POINT: 0°C  
FREEZING POINT: -4°C  
VAPOR PRESSURE (mmHg): NA  
VAPOR DENSITY (AIR = 1): NA  
SPECIFIC GRAVITY (H<sub>2</sub>O = 1): NA  
EVAPORATION RATE: NA  
SOLUBILITY IN WATER: Soluble  
PERCENT SOLIDS BY WEIGHT: NA  
PERCENT VOLATILE: NA  
VOLATILE ORGANIC COMPOUNDS (VOC): None

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**SECTION 10: STABILITY AND REACTIVITY**

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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, sulphur oxides  
HAZARDOUS POLYMERIZATION: NA  
CONDITIONS TO AVOID (POLYMERIZATION): NA

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**SECTION 11: DISPOSAL CONSIDERATIONS**

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WASTE DISPOSAL METHOD: Disposal with non-hazardous materials. Observe all federal, state, and local environmental regulations

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**SECTION 12: TRANSPORT INFORMATION**

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U.S. DEPARTMENT OF TRANSPORTATION  
PROPER SHIPPING NAME: CryoStor™  
HAZARD CLASS: NA

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**SECTION 13: OTHER INFORMATION**

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OTHER INFORMATION: The data on this material safety data sheet relates only to the specific material herein and does 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 liability from its use. Users should make their own investigations to determine the suitability of the information.