

MATERIAL SAFETY DATA SHEET

Product Name: BloodStor® 55-5

MSDS Date: 05 November 2014

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	BloodStor® 55-5
Synonyms:	N/A
Product Codes:	355371, 355372, 355469, 355210
Manufacturer:	BioLife Solutions, Inc.
Address:	3303 Monte Villa Pkwy, Suite 310, Bothell, WA 98021 USA
Emergency Phone:	425.402.1400
Other Calls:	866.424.6543
Fax:	425.402.1433
Product Use:	Ultra low temperature (-70°to -196°C) storage of biological material (cells, tissues and organs)

SECTION 2: HAZARDS IDENTIFICATION

WARNING! 100% DMSO - COMBUSTIBLE LIQUID AND VAPOR. Please see notes in Section 5.

Physical Appearance:	Clear liquid
Routes of Entry:	Oral, Skin, Eyes
Odor:	Essentially Odorless
Potential Health Effects:	The components in the Product are Dimethyl Sulfoxide (DMSO) 55% (w/v) and Dextran-40 (5% (w/v) in Water for Injection Quality Water. Only DMSO has known health effects, but has been shown to have few toxic symptoms in humans. The most common are nausea, skin rashes and an unusual garlic-onion-oyster smell on body and breath.
Inhalation:	High vapor concentrations may cause headache, dizziness, and sedation.
Eyes:	Low hazard for usual laboratory handling by trained personnel.
Skin:	Not a significant threat by skin absorption; however, DMSO may cause stinging and burning of the skin as well as rashes and vesicles. DMSO easily penetrates the skin and may enhance the rate of skin absorption of toxic substances.
Carcinogenicity:	None of the components at concentrations equal or greater than 0.1% are listed by NTP, IARC, or OSHA as a carcinogen.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient:	Dimethyl Sulfoxide (DMSO)
	CAS NO: 67-68-5 MF: C ₂ H ₆ OS %Vol 55% (wt/vol)
	MSDS information is for 100% DMSO. For further information refer to DMSO MSDS – Gaylord Chemical (DMSO-USP/PhEur). All other ingredients in the proportions used are considered non-hazardous by regulating bodies worldwide.

SECTION 4: FIRST AID MEASURES

NEVER GIVE FLUIDS OR INDUCE VOMITING IF PATIENT IS UNCONSCIOUS OR IS HAVING CONVULSIONS.

Eyes:	Flush with running water for >15 minutes. If irritation persists, seek medical attention.
Skin:	Wash skin thoroughly with soap and water. If irritation persists, seek medical attention. Wash contaminated clothing before reuse.
Ingestion:	Seek immediate medical attention. Do NOT induce vomiting.
Inhalation:	Remove to fresh air. If breathing has stopped, provide artificial respiration. Keep the victim warm and seek medical attention.

NOTES TO PHYSICIAN OR FIRST AID PROVIDERS:

BloodStor® in general is not dangerous to people, but like any other chemical; it should be treated with care, respect, and common sense.

SECTION 5: FIRE-FIGHTING MEASURES

100% DMSO HAS COMBUSTIBLE LIQUID AND VAPOR. Because the combustibility of the BloodStor® is unknown, it is recommended to follow the fire-fighting measures for 100% DMSO.

Extinguishing Media:	Foam, carbon dioxide, dry powder, and water spray
Special Protective Equipment:	Wear a Self-Contained Breathing Apparatus (SCBA) rubber gloves, rubber suit
Special Exposure Hazards:	Burning product may produce poisonous gasses (sulfur oxides)
Flashpoint:	Unknown for Product. 100% DMSO: 89°C (192°F) closed cup; 95°C (203°F) open cup

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	In case of mist formation, use a respirator or Self-Contained Breathing Apparatus (SCBA).
Spills:	Consult environmental supervisor. Remove ignition sources. Ventilate the area. Do not breathe vapor or get liquid on skin/eyes/clothing.
Disposal:	Dilute and flush to wastewater treatment or absorb with inert material. Do not allow to enter streams or waterways.

SECTION 7: HANDLING AND STORAGE

Handling:	Keep away from sources of ignition. 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:	Latex/Non-Latex 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:	Essentially odorless	Specific Gravity (H2O=1):	1.09 g/mL (g/L)
Physical State:	Liquid	Evaporation Rate:	NA
pH as Supplied:	NA	Solubility in Water:	Soluble
Boiling Point:	NA	Percent Solids by Weight:	NA
Melting Point:	Unknown	Percent Volatile:	NA
Freezing Point:	Unknown	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:	Sulfur dioxide, formaldehyde, methyl mercaptan, dimethyl sulfide, dimethyl disulfide, and bis (methylthio) methane.
Hazardous Polymerization:	NA
Conditions to Avoid (polymerization):	NA

SECTION 11: TOXICOLOGICAL INFORMATION

No data available

SECTION 12: ECOLOGICAL INFORMATION

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method:	Disposal with non-hazardous materials. Observe all federal, state, and local environmental regulations.
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SECTION 14: TRANSPORT INFORMATION

US Department of Transportation:	Proper Shipping Name: BloodStor®	Hazard Class:	NA
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SECTION 15: REGULATORY INFORMATION

No data available

SECTION 16: 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.
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Preparation Information:	This information is believed to be accurate and represents the best information available to date.
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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.
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