Material Safety Datasheet (MSDS)

Updated: 03/18/2026
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 2020/2008
www.abmgood.com

Applied Biological Materials Inc.
1-3671 Viking Way,
Richmond, BC, CANADA
V6V 2J5

Section 1 – Identification of Substances/Mixture and of the Company/Undertaking

1.1 Product identifier.

Product Name	CryoGuard™ Freezing Media
Product Code(s)	TM078
Reach Number	A registration number is not required for this substance

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Recommended Use	For research use only. Not for human or diagnostic use.
Uses advised against	Not for human consumption, food, or diagnostic use. Avoid contact with skin and eyes.

1.3 Details of the supplier of the safety data sheet:

Supplier Name	Applied Biological Materials Inc.
Supplier Address	#1-3671 Viking Way Richmond BC V6V 2J5 CA
Supplier Phone Number	Tel: 604-247-2416 Fax: 604-247-2414
Supplier Email	technical@abmgood.com

1.4 Emergency telephone number:

Emergency Phone	Use your national or local emergency number. Canada or USA: Emergency Services (dial 911, 24h service)

Section 2 – Hazards Identification

2.1 Classification of the substance or mixture.

Classification of substance according to Regulation (EC) No 1272/2008 (CLP)

Skin Irritation – Category 2 (H315)
Eye Irritation – Category 2 (H319)
Skin Sensitization – Category 1 (H317)

2.2 Label elements.

Label elements according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms:

Exclamation mark (for skin/eye irritation & sensitization)

Signal word: Warning

Hazard statements (H-statements):

- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- H319: Causes serious eye irritation

Precautionary statements (P-statements):

- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water

2.3 Other hazards.

Contains DMSO which may enhance absorption of other substances through the skin. May cause allergic reactions due to antibiotic content.

Section 3 – Composition/Information on Ingredients

3.1 Substances.

The product is a laboratory reagent mixture for research use only.
It contains the following hazardous components:

- DMSO (Dimethyl sulfoxide), ~10% – Skin and eye irritant (H315, H319)
- Antibiotic (Penicillin/Streptomycin), ~1% – Skin sensitizer (H317)

The exact concentration of these reagents has been withheld as a trade secret. Other components include a mixture of cell culture nutrients such as inorganic salts, vitamins, amino acids, carbohydrates, and other nutrients dissolved in water. Concentrations of non-hazardous components are proprietary.

Section 4 – First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, remove contact lens if applicable; consult a physician.
Skin Contact	Wash affected area with soap and water. Remove contaminated clothing. DMSO can enhance absorption of chemicals through the skin. Seek medical attention if irritation develops.
Inhalation	If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Do not induce vomiting unless directed to do so by physician.
Most Important Symptoms and Effects, both Acute and Delayed	• Skin and eye irritation (DMSO). • Potential allergic reactions (antibiotic). • DMSO may enhance absorption of other substances through the skin.
Indication of any Immediate Medical Attention and Special Treatment Needed	• Treat symptomatically and supportively. • In case of severe exposure, seek medical attention promptly.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide, dry chemical powder, Halon (where regulations permit), or appropriate foam.
Specific Hazards	Thermal decomposition may generate irritating or toxic gases and vapors. DMSO is combustible at elevated temperatures.
Advice for Firefighters	Wear self contained breathing apparatus for firefighting if necessary. Use personal protection equipment.
Further Information	Suppress (knock down) gases, vapors, or mists with a water spray jet. Prevent fire-extinguishing water from contaminating surface water or groundwater systems.

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Wear appropriate personal protective equipment (gloves, lab coat, eye protection). Avoid contact with skin, eyes, and clothing. Do not breathe vapors or aerosols. Evacuate non-essential personnel and follow laboratory emergency procedures. For further information on protective equipment, see Section 8.
Methods and Materials for Containment and for Cleaning Up	Contain spills to prevent spreading. Absorb with inert material (e.g., paper towels, vermiculite, or other absorbent). Collect contaminated material and place in a labeled biohazard or chemical waste

	container. Wash affected area with water after spill removal. Avoid release to drains.
Environmental Precautions	Prevent entry into drains, sewers, or waterways. See Section 12 for environmental information.
Reference to Other Sections	For disposal see Section 13.

Section 7 – Handling and Storage

7.1 Precautions for Safe Handling

Advice on Safe Handling	Handle in a laboratory setting using appropriate personal protective equipment (gloves, lab coat, eye protection).
General Hygiene Considerations	• Avoid contact with skin and eyes; DMSO may enhance absorption of other substances through the skin. • Do not inhale vapors, aerosols, or mist. • Follow good laboratory hygiene practices, including washing hands after handling.

7.2 Conditions for Safe Storage, including any Incompatibilities

Storage Conditions	Keep container tightly closed. Keep at -20 to -80°C; as indicated by product label.

7.3. Specific end use(s)

Risk Management Methods (RMM)	The information required is contained in this Material Safety Data Sheet.

Section 8 – Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure Limits	• This product contains hazardous components (DMSO, antibiotic), but no region-specific occupational exposure limits have been established. • Follow good laboratory practices and the personal protective equipment (PPE) recommendations below.
Derived No Effect Level (DNEL)	DNEL: Not available.
Predicted No Effect Concentration (PNEC)	PNEC: Not available.

8.2. Exposure Controls

Personal Protective Equipment	**Eye/face Protection**: Wear safety glasses or goggles approved to local standards. Use a face shield if splashing is possible. .

	Skin and Body Protection: Wear chemical-resistant gloves (e.g., nitrile) and lab coat. DMSO may enhance skin absorption of other substances; avoid skin contact. **Respiratory Protection**: If aerosol or mist formation is possible, use a suitable respirator with particle filter approved to local regulations.
Environmental Exposure Controls	• Avoid release to drains, sewers, or waterways. • Prevent contamination of soil, surface water, and groundwater. • Follow proper waste disposal procedures as described in Section 13.

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State	Frozen solid (for frozen storage) or liquid (thawed)
Colour	Data not relevant for safe use
Odour	Data not relevant for safe use

Property	Values	Remarks/Method
Melting Point/Freezing Point (°C)	Data not relevant for safe use	None known
Boiling Point/Boiling Range (°C)	Data not relevant for safe use	None known
Flammability	Non-flammable under normal conditions	DMSO combustible at elevated temperatures
Lower and Upper Exposure Limit	Data not relevant for safe use	None known
Flash Point	Data not relevant for safe use	None known
Auto-ignition Temperature	Data not relevant for safe use	None known
Flammability Limit in Air	Data not relevant for safe use	None known
Decomposition Temperature	Data not relevant for safe use	None known
pH	Data not relevant for safe use	None known
Kinematic Viscosity	Data not relevant for safe use	None known
Solubility	Completely soluble in water	N/A
Partition coefficient: n-octanol/water	Data not relevant for safe use	None known

Vapour pressure	Data not relevant for safe use	None known
Density / Relative Density	Data not relevant for safe use	None known
Relative Vapour Density	Data not relevant for safe use	None known
Decomposition Temperature	Data not relevant for safe use	None known
Particle Characteristics	Data not relevant for safe use	None known

9.2. Other Information

Physical State Softening Point	Data not relevant for safe use
Colour Molecular Weight	Data not relevant for safe use
Odour VOC Content (%)	Data not relevant for safe use
Liquid Density	Data not relevant for safe use
Bulk Density	Data not relevant for safe use
Particle Size	Data not relevant for safe use
Particle Size Distribution	Data not relevant for safe use

Section 10 – Stability and Reactivity

10.1. Reactivity

No hazardous reactivity expected under normal laboratory conditions.

10.2. Chemical stability

Stable when stored at recommended temperatures (2–8°C short-term or –20 to –80°C long-term) and protected from light.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions	None under normal processing
Hazardous Polymerization	Hazardous polymerization does not occur

10.4. Conditions to avoid

Excess heat.

10.5. Incompatible materials

Avoid contact with strong oxidizers and strong acids. No other incompatibilities known under normal laboratory conditions.

10.6. Hazardous decomposition products

Thermal decomposition may generate irritating or toxic gases or vapors, particularly if exposed to high heat.

Section 11 – Toxicological Information

11.1. Information on Toxicological Effects

Information on Toxicological Effects

Inhalation	No specific data available for the mixture. Inhalation of aerosols or mists may cause mild respiratory irritation.
Eye Contact	Causes serious eye irritation (DMSO).
Skin Contact	Causes skin irritation (DMSO). DMSO may enhance the absorption of other chemicals through the skin. May cause allergic skin reaction (antibiotic).
Ingestion	No data for the mixture. Ingestion may cause mild gastrointestinal discomfort. Do not ingest.

Information on toxicological effects

Symptoms	• Irritation of skin, eyes, and respiratory tract • Possible allergic reaction due to antibiotic content

Numerical measures of toxicity

Acute Toxicity	No information available
Unknown Acute Toxicity	No information available

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Skin Corrosion/Irritation	Causes skin irritation (DMSO)
Serious Eye Damage/Eye Irritation	Causes serious eye irritation (DMSO)
Respiratory or Skin Sensitization	May cause allergic skin reaction (antibiotic)
Germ Cell Mutagenicity	No information available
Carcinogenicity	No information available

Reproductive Toxicity	No information available
STOT - Single Exposure	May cause irritation of skin, eyes, or respiratory tract
STOT - Repeated Exposure	No information available
Aspiration Hazard	No information available

Section 12 – Ecological Information

12.1. Toxicity

Exotoxicity	No specific ecological data are available for this mixture. DMSO and antibiotics may be harmful to aquatic organisms. Avoid release to the environment.

12.2 Persistence and Degradability

Persistence and Degradability	No specific data available. Components are expected to be biodegradable under normal environmental conditions.

12.3 Bioaccumulative Potential

Bioaccumulation	No data available. Mixture is not expected to bioaccumulate significantly.

12.4 Mobility in Soil

Mobility in Soil	No data available. Avoid release to soil and water systems.

12.5 Results of PBT and vPvB Assessment

PBT and vPvB Assessment	Components of the mixture are not classified as PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative).

12.6 Other Adverse Effects

Other Adverse Effects	Avoid environmental release. No other adverse effects identified.

Section 13 – Disposal Considerations

13.1 Waste Treatment Methods

Waste from Residues/Unused Products	Dispose of in accordance with local, regional, and national regulations. Do not release into drains, sewers, or the environment. Consider the mixture as chemical and biohazard waste.
Contaminated Packaging	Dispose of packaging in accordance with local regulations. Wash containers before disposal if allowed, or treat as chemical waste if contaminated.

Section 14 – Transportation Information

IMDG

14.1 UN Number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Marine Pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable

RID

14.1 UN-No.	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN-No.	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated

Subsidiary Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15 – Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:
This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Persistent Organic Pollutants
Not applicable.

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable.

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend

TSCA	United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL	Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS	Japan Existing and New Chemical Substances
IECSC	China Inventory of Existing Chemical Substances
KECL	Korean Existing and Evaluated Chemical Substances
PICCS	Philippines Inventory of Chemicals and Chemical Substances
AICS	Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

No information available.

Section 16 – Other Information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
SVHC: Substances of Very High Concern for Authorization:

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	-	Skin designation

Key literature references and sources for data
www.ChemADVISOR.com/

Revision Date 18-March-2026

This safety data sheet complies with the requirements of: Regulation (EC) No.1907/2006.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet