

9-1-05



SIGMA-ALDRICH

### Material Safety Data Sheet

Date Printed: 03/23/2005  
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Version 1.20

#### Section 1 - Product and Company Information

<b>Product Name</b>	Cell Freezing Medium-DMSO (1x), Sterile-filtered, endotoxin tested		
<b>Product Number</b>	C6164		
<b>Brand</b>	Sigma Chemical		
<b>Company</b>	Sigma-Aldrich		
<b>Street Address</b>	3050 Spruce Street		
<b>City, State, Zip, Country</b>	SAINT LOUIS, MO 63103 US		
<b>Technical Phone:</b>	314 771 5765	<b>Emergency Phone:</b>	414 273 3850 Ext. 5996
<b>Fax:</b>	800 325 5052		

#### Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
CELL FREEZING MEDIUM-DMSO CELL CULTURE	None	No		

**Formula**  
**Synonyms**

#### Section 3 - Hazards Identification

**Emergency Overview**  
Readily absorbed through skin. Target organ(s): Eyes. Skin.

**HMIS Rating**  
Health: 0\*      Flammability: 0      Reactivity: 0

**NFPA Rating**  
Health: 0      Flammability: 0      Reactivity: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11:

#### Section 4 - First Aid Measures

**Oral Exposure**  
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation Exposure**  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**Dermal Exposure**  
In case of contact, immediately wash skin with soap and copious amounts of water.

**Eye Exposure**  
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

#### Section 5 - Fire Fighting Measures

**Autoignition Temp:** N/A

**Extinguishing Media**  
**Suitable**  
Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

**Firefighting**  
**Protective Equipment**  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
**Specific Hazard(s)**  
Combustible liquid. Emits toxic fumes under fire conditions.

#### Section 6 - Accidental Release Measures

**Procedure to be Followed in Case of Leak or Spill**  
Evacuate area.

**Methods for Cleaning Up**  
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

**Environmental Precaution(s)**  
Avoid contaminating sewers and waterways with this material.

#### Section 7 - Handling and Storage

**Handling**  
**User Exposure**  
Do not breathe vapor. Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body. Avoid prolonged or repeated exposure.

**Storage**  
**Suitable**  
Keep tightly closed. Store in a cool dry place. Store at -20°C

#### Section 8 - Exposure Controls / PPE

**Engineering Controls**  
Safety shower and eye bath. Mechanical exhaust required.

**Personal Protective Equipment**  
**Respiratory**  
Government approved respirator.  
**Hand**  
Compatible chemical-resistant gloves.  
**Eye**  
Chemical safety goggles.  
**Skin-Specific**  
Chemical resistant apron.

**General Hygiene Measures**

Wash contaminated clothing before reuse. Wash thoroughly after handling.

**Section 9 - Physical/Chemical Properties****Appearance**

**Physical State**  
Liquid

**Molecular Weight:** N/A

**pH** N/A  
**BP/BP Range** N/A  
**MP/MP Range** N/A  
**Freezing Point** N/A  
**Vapor Pressure** N/A  
**Vapor Density** N/A  
**Saturated Vapor Conc.** N/A  
**SG/Density** N/A  
**Bulk Density** N/A  
**Odor Threshold** N/A  
**Volatile%** N/A  
**VOC Content** N/A  
**Water Content** N/A  
**Solvent Content** N/A  
**Evaporation Rate** N/A  
**Viscosity** N/A  
**Partition Coefficient** N/A  
**Decomposition Temp.** N/A  
**Flash Point °F** N/A  
**Flash Point °C** N/A  
**Explosion Limits** N/A

**Flammability** N/A  
**Autoignition Temp** N/A  
**Solubility** N/A

N/A = not available

**Section 10 - Stability and Reactivity****Stability**

Stable  
Stable.

**Materials to Avoid**  
Strong oxidizing agents.

**Hazardous Decomposition Products****Hazardous Decomposition Products**

Nature of decomposition products not known.

**Hazardous Exothermic Reactions****Hazardous Exothermic Reactions**

Methyl sulfoxide (DMSO) undergoes a violent exothermic reaction on mixing with copper wool and trichloroacetic acid. On mixing with potassium permanganate it will flash instantaneously. It reacts violently with: acid halides, cyanuric chloride, silicon tetrachloride, phosphorus trichloride and trioxide, thionyl chloride, magnesium perchlorate, silver fluoride, methyl bromide, iodine pentafluoride, nitrogen periodate, diborane, sodium hydride, and perchloric and periodic acids. When heated above its boiling point methyl sulfoxide degrades giving off formaldehyde, methyl mercaptan, and sulfur dioxide..

**Hazardous Polymerization****Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Route of Exposure****Skin Contact**

May cause skin irritation.

**Skin Absorption**

May be harmful if absorbed through the skin. Readily absorbed through skin.

**Eye Contact**

May cause eye irritation.

**Inhalation**

Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

**Ingestion**

May be harmful if swallowed.

**Target Organ(s) or System(s)**

Eyes. Skin.

**RTECS Number:** N/A

**Section 13 - Disposal Considerations****Appropriate Method of Disposal of Substance or Preparation**

Contact a licensed professional waste disposal service to dispose of this material.

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

**Section 14 - Transport Information****DOT**

**Proper Shipping Name:** None

**Non-Hazardous for Transport:** This substance is considered to be non-hazardous for transport.

**IATA**

**Non-Hazardous for Air Transport:** Non-hazardous for air transport.

**Section 15 - Regulatory Information****US Classification and Label Text****US Statements**

Readily absorbed through skin. Target organ(s): Eyes. Skin.

**United States Regulatory Information**

**SARA Listed:** No

**Canada Regulatory Information****WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No  
NDSL: No

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## Section 16 - Other Information

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### Disclaimer

For R&D use only. Not for drug, household or other uses.

### Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.