

## GHS SAFETY DATA SHEET

### 293-ES Cells, Frozen in ESF SFM

#### SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 293-ES Cells, Frozen in ESF SFM  
**Product Use:** For laboratory use.  
Not for human or animal therapeutic or clinical diagnostic use.  
**Product Number:** 94-007F

**Manufacturer:** Expression Systems, LLC  
2537 Second Street  
Davis, CA 95618  
Tel. 1-530-747-2035  
Fax 1-530-747-2034

#### SECTION 2 – HAZARDS IDENTIFICATION

**GHS Classification:**

**Physical State:** Slightly viscous translucent liquid  
**Classification:** WARNING- Irritant. Hazardous if absorbed.

**GHS Label:**



**HMIS Rating:** Health: 1 Flammability: 0 Reactivity: 0

**Potential Health Effects:** Eyes: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.  
Skin: Can cause moderate skin irritation, defatting and dermatitis. Not likely to cause permanent damage.  
Inhalation: Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. No toxicity expected from inhalation.  
Ingestion: Irritating to mouth, throat and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

#### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

**Substance Name:** Dimethyl Sulfoxide  
**CAS Number:** 67-68-5 **EINECS:** 200-664-3 **Concentration by weight:** 5%

**Ingredients:** The above ingredients are components classified as hazardous based on physical properties and health effects. Other ingredients are withheld as a trade secret, but are available to health professionals, ES employees and designated representatives in accordance with applicable provisions of 29 CFR 1910.1200(i)(1)(iv).

#### SECTION 4 – FIRST AID MEASURES

**Skin Contact:** Remove contaminated clothing and shoes. Wash skin thoroughly with plenty of water. If irritation develops, seek medical advice.  
**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If breathing is stopped, give artificial respiration.  
**Ingestion:** Rinse mouth with water. Do not give anything by mouth to an unconscious person.  
**Eye Exposure:** Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Check and remove contact lenses. Seek medical advice.  
**Notes to physician:** Treat symptomatically.

#### SECTION 5 – FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Dry chemical powder  
**Auto Ignition Temperature:** Not Applicable  
**Protection for Firefighters:** Self-contained breathing apparatus and protective suit  
**NFPA Rating:** Health: 1 Flammability: 0 Reactivity: 0

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protective equipment. Prevent contact with skin or eyes (see section 8).

**Methods for cleaning up:** Clean up with inert absorbent material

## SECTION 7 – HANDLING AND STORAGE

**Handling:** No special handling advice required

**Storage:** Store in properly labeled containers

## SECTION 8 – PRECAUTIONS TO CONTROL EXPOSURE/PERSONAL PROTECTION

**Exposure Limits:**

<u>Component</u>	<u>OSHA PEL (ppm)</u>	<u>AGCIH TWA (ppm)</u>
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Dimethyl Sulfoxide	Not established	Not established
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**Engineering Controls:** Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment (PPE):**

**Eye Protection:** Avoid contact with eyes. Wear safety glasses with side shields.

**Skin Protection:** Prevent contact with the skin as much as possible. Wear protective rubber gloves and lab coat.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practices.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	White slightly viscous liquid	<b>Flash Point:</b>	°C/°F – No data available
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<b>pH:</b>	Not established	<b>Auto-ignition Temperature:</b>	°C/°F – No data available
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<b>Melting/Freezing Point:</b>	°C/°F – No data available	<b>Oxidizing Properties:</b>	No information available
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<b>Boiling Point:</b>	°C/°F – No data available	<b>Water Solubility:</b>	No data available
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## SECTION 10 – STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions	<b>Incompatible Materials:</b>	Strong oxidizing agents
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<b>Hazardous decomposition products:</b>	No information available	<b>Hazardous polymerization:</b>	Will not occur
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## SECTION 11 – TOXICOLOGICAL INFORMATION

**Likely routes of exposure:** Inhalation, eye and skin contact, ingestion

**Acute toxicity and effects:**

<b>Inhalation:</b>	No information available	<b>Skin contact:</b>	Dimethyl sulfoxide 40 gm/kg
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<b>Eye contact:</b>	No information available	<b>Ingestion:</b>	Dimethyl sulfoxide 14,500 mg/kg
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**Specific effects:**

<b>Carcinogenic:</b>	No information available	<b>Teratogenic/Reproductive:</b>	No information available
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<b>Mutagenic:</b>	No information available	<b>Sensitization:</b>	No information available
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**Target organ effects:** No information available. Target organs: Blood, skin, eyes.

**Chronic (long-term) effects:** No known effect based on information supplied

## SECTION 12 – ECOLOGICAL INFORMATION

**Eco-toxicity:** No information available

**Degradability:** Biodegrades slowly

**Bioaccumulation:** Not expected to occur

## SECTION 13 – WASTE DISPOSAL CONSIDERATIONS

**Waste disposal method:** Disposal of this product, solutions and any by-products should comply with all federal, state and local regulations

## SECTION 14 – TRANSPORT INFORMATION

**DOT:**

**Proper shipping name:** None

**Hazard Class:** This substance is considered to be non-hazardous for transport.

**IATA:**

**Proper shipping name:** None

**Hazard Class:** This substance is considered to be non-hazardous for transport.

## SECTION 15 – REGULATORY INFORMATION

**United States Regulatory Information:**

**TSCA:** This product is solely for research and development purposes only and may not be used, processed or distributed for commercial purpose. It may only be handled by technically qualified individuals.

**SARA 313:** This product does not contain any 313 chemicals regulated by SARA.

**California Proposition 65:** This product does not contain chemicals listed under Proposition 65.

**Canada Regulatory Information:**

**DSL/NDL:** Not determined

**Component:** Dimethyl sulfoxide                      **WHMIS Hazard Class:** D2B

**European Union Regulatory Information:**

**Product Risk Phrases:** None assigned

**Product Safety Phrases:** None assigned

**Product Classification:** None

**Component:** Dimethyl sulfoxide                      **EINECS Number:** 200-664-3

**SARA listed:** No

## SECTION 16 – OTHER INFORMATION

**Issuing Date:** May 2016

**Reissue date/reason for reissue:** Feb 2017/Corrected formatting errors.

**Intended use of product:** Material is sold for Research Use Only. Not for use in diagnostic procedures or human/animal therapeutics.

**Disclaimer:** The information provided on this SDS is correct to the best of our knowledge, information, and belief at the date of its publication. It does not purport to be all inclusive and shall be used only as a guide for safe handling, use, processing, storage, transportation, disposal and release of the product. This is not considered as a warranty or quality specification. Expression Systems shall not be held liable for any damage resulting from the handling or from contact with the above product.