

GHS SAFETY DATA SHEET

S2 Drosophila Cells, Frozen in ESF 921

	CT AND COM	PANY IDENTIFI	CATION		
Product Name:	S2 Drosophila C	ells, Frozen in ESF	921	Manufacturer:	Expression Systems, LLC 2537 Second Street
Product Use:	For laboratory us Not for human of		or clinical diagnostic use.		Davis, CA 95618 Tel. 1-530-747-2035
Product Number:	94-005F	94-005F			Fax 1-530-747-2034
SECTION 2 – HAZAR	DS IDENTIFIC	ATION			
GHS Classification:					
Physical State:	Slightly viscous translucent liquid				
Classification:	WARNING- Irritant. Hazardous if absorbed.				
GHS Label:	(!)				
HMIS Rating:	Health: 1	Flammability: 0	Reactivity:)	
Potential Health Effects:	Eyes: Can cause	e moderate irritation	, tearing and reddening, bu	ut not likely to permanently	injure eye tissue.
	Skin: Can cause	moderate skin irrita	tion, defatting and dermati	tis. Not likely to cause per	nanent damage.
	Inhalation: Can of expected from in		piratory irritation, dizziness	, weakness, fatigue, nauso	ea and headache. No toxicity
	Ingestion: Irritatir	ng to mouth, throat	and stomach. Can cause a	bdominal discomfort, naus	ea, vomiting and diarrhea.
SECTION 3 – COMPC			IGREDIENTS		
Substance Name:	Dimethyl Sulfoxi	de			
CAS Number:	67-68-5	ENEICS:	200-664-3	Concentration b	y weight: 5%
			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).		
Ingredients:	ingredients are v	withheld as a trade s	secret, but are available to	health professionals, ES e	
-	ingredients are v representatives i	withheld as a trade s in accordance with a	secret, but are available to	health professionals, ES e	
-	ingredients are v representatives i	withheld as a trade s in accordance with a S	ecret, but are available to applicable provisions of 29	health professionals, ES e CFR 1910.1200(i)(1)(iv).	
SECTION 4 – FIRST A Skin Contact:	ingredients are v representatives i AID MEASURE Remove contam advice.	withheld as a trade s in accordance with a S inated clothing and	ecret, but are available to applicable provisions of 29	health professionals, ES e CFR 1910.1200(i)(1)(iv).	mployees and designated
SECTION 4 – FIRST A Skin Contact: Inhalation:	ingredients are v representatives i AID MEASURE Remove contam advice. Move to fresh air	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi	secret, but are available to applicable provisions of 29 shoes. Wash skin thoroug	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia	mployees and designated
SECTION 4 – FIRST A Skin Contact: Inhalation: Ingestion:	ingredients are v representatives i AID MEASURE Remove contam advice. Move to fresh air Rinse mouth with Immediately flus	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi h water. Do not give	secret, but are available to applicable provisions of 29 shoes. Wash skin thorough cult, give oxygen. If breath anything by mouth to an u	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia inconscious person.	mployees and designated
SECTION 4 – FIRST A Skin Contact: Inhalation: Ingestion: Eye Exposure:	ingredients are v representatives i AID MEASURE Remove contam advice. Move to fresh air Rinse mouth with Immediately flus	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi h water. Do not give h eyes with plenty c tact lenses. Seek m	secret, but are available to applicable provisions of 29 shoes. Wash skin thorough cult, give oxygen. If breath anything by mouth to an u	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia inconscious person.	mployees and designated rritation develops, seek medical al respiration.
SECTION 4 – FIRST A Skin Contact: Inhalation: Ingestion: Eye Exposure: Notes to physician:	ingredients are v representatives i AID MEASURE Remove contam advice. Move to fresh air Rinse mouth with Immediately flus and remove cont Treat symptomat	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi h water. Do not give h eyes with plenty c tact lenses. Seek m tically.	secret, but are available to applicable provisions of 29 shoes. Wash skin thorough cult, give oxygen. If breath anything by mouth to an u	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia inconscious person.	mployees and designated rritation develops, seek medical al respiration.
SECTION 4 – FIRST A Skin Contact: Inhalation: Ingestion: Eye Exposure: Notes to physician: SECTION 5 – FIREFIC	ingredients are v representatives i AID MEASURE Remove contam advice. Move to fresh ain Rinse mouth with Immediately flus and remove cont Treat symptomat	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi h water. Do not give h eyes with plenty c tact lenses. Seek m tically.	secret, but are available to applicable provisions of 29 shoes. Wash skin thorough cult, give oxygen. If breath anything by mouth to an u	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia inconscious person.	mployees and designated rritation develops, seek medical al respiration.
SECTION 4 – FIRST A Skin Contact: Inhalation: Ingestion: Eye Exposure: Notes to physician: SECTION 5 – FIREFIC Suitable Extinguishing Me	AID MEASURE Remove contam advice. Move to fresh air Rinse mouth with Immediately flus and remove cont Treat symptoma CHTING MEAS rdia: Dry ch	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi h water. Do not give h eyes with plenty c tact lenses. Seek m tically. URES	secret, but are available to applicable provisions of 29 shoes. Wash skin thorough cult, give oxygen. If breath anything by mouth to an u	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia inconscious person.	mployees and designated rritation develops, seek medical al respiration.
SECTION 4 – FIRST A Skin Contact: Inhalation: Ingestion: Eye Exposure: Notes to physician: SECTION 5 – FIREFIC Suitable Extinguishing Me Auto Ignition Temperature	ingredients are v representatives i AID MEASURE Remove contam advice. Move to fresh ain Rinse mouth with Immediately flus and remove cont Treat symptoma BHTING MEAS edia: Dry ch	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi h water. Do not give h eyes with plenty of tact lenses. Seek m tically. URES nemical powder oplicable	secret, but are available to applicable provisions of 29 shoes. Wash skin thorough cult, give oxygen. If breath anything by mouth to an u	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia inconscious person.	mployees and designated rritation develops, seek medical al respiration.
Inhalation: Ingestion: Eye Exposure: Notes to physician: SECTION 5 – FIREFIC	ingredients are v representatives i AID MEASURE Remove contam advice. Move to fresh ain Rinse mouth with Immediately flus and remove cont Treat symptoma BHTING MEAS edia: Dry ch	withheld as a trade s in accordance with a S inated clothing and r. If breathing is diffi h water. Do not give h eyes with plenty of tact lenses. Seek m tically. URES nemical powder oplicable ontained breathing a	applicable provisions of 29 shoes. Wash skin thoroug cult, give oxygen. If breath anything by mouth to an u of water for at least 20 minu edical advice.	health professionals, ES e CFR 1910.1200(i)(1)(iv). Inly with plenty of water. If i ing is stopped, give artificia inconscious person.	mployees and designated rritation develops, seek medical al respiration.

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: **Component** OSHA PEL (ppm) AGCIH TWA (ppm) **Dimethyl Sulfoxide** Not established Not established **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. Handle in accordance with good industrial hygiene and safety practices. **Hygiene Measures: SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES** White slightly viscous liquid Appearance: Not established pH: **Melting/Freezing Point:** °C/°F - No data available **Boiling Point:** °C/°F - No data available Flash Point: °C/°F - No data available Auto-ignition Temperature: °C/°F - No data available **Oxidizing Properties:** No information available

Water Solubility:

No data available

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SECTION 10 – STABILITY AND REACTIVITY				
Stability:	Stable under normal conditions			
Hazardous decomposition products:	No information available			
Incompatible Materials:	Strong oxidizing agents			
Hererdeus nel merization.	W/II not coour			
Hazardous polymerization:	Will not occur			
SECTION 11 – TOXICOLOGIC				
Likely routes of exposure:	Inhalation, eye and skin contact, ingestion			
A suite to visitive and offeredes				
Acute toxicity and effects:				
Inhalation:	No information available			
Eye contact:	No information available			
Skin contact:	Dimethyl sulfoxide 40 gm/kg			
Ingestion:	Dimethyl sulfoxide 14,500 mg/kg			

Specific effects:

Carcinogenic:	No information available
Mutagenic:	No information available
Teratogenic/Reproductive:	No information available
Sensitization:	No information available
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 inform	nation 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/NDSL:	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:	Jan 2013	
Reissue date/reason for reissue:	Feb 2017/Updated company logo.	
Intended use of product:	Material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use.	
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.	