

JCSG

## 1. Identification

**Product identifier**                    **Wizard JCSG**  
**Other means of identification**    Not available.  
**Recommended use**                    For laboratory use.  
**Recommended restrictions**        None known.

### Manufacturer / Importer / Supplier / Distributor information

**Company name**                    Emerald BioSystems, Inc.  
**Address**                                7869 NE Day Road W  
     Bainbridge Island, WA  
     98110  
     US  
**Telephone**                        General Information:            855-436-2467  
**E-mail**                                MSDS@embios.com  
**Contact person**                    Product department  
**Emergency phone number**        24 Hour Emergency:            855-436-2467

## 2. Hazard(s) identification

**Physical hazards**                    Not classified.  
**Health hazards**                      Serious eye damage/eye irritation            Category 2B  
**OSHA hazard(s)**                    Not classified.

### Label elements

**Hazard symbol**                    No symbol.  
**Signal word**                        Warning  
**Hazard statement**                Causes eye irritation.

### Precautionary statement

**Prevention**                        Wash thoroughly after handling.  
**Response**                        If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
**Storage**                            Store away from incompatible materials.  
**Disposal**                            Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)**    Not classified.

## 3. Composition/information on ingredients

### Mixture

Hazardous components	Common name and synonyms	CAS number	%
Poly(oxy-1,2-ethanediyl) ethoxylated		25322-68-3	20.8
2-Methylpentane-2,4-diol		107-41-5	4.5
Sodium cacodylate		6131-99-3	0.2

**Composition comments**            This Safety Data Sheet is a summation of the composition and hazards of the individual solutions that comprise the product as a whole. Individual wells have varying compositions and hazard profiles.

## 4. First-aid measures

**Inhalation**                        If symptomatic, move to fresh air. Get medical attention if symptoms persist.  
**Skin contact**                      Wash with soap and water. Get medical attention if symptoms occur after washing.  
**Eye contact**                      Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.  
     In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms persist.

**Ingestion** Seek medical advice.  
**Most important symptoms/effects, acute and delayed** Causes eye irritation.  
**Indication of immediate medical attention and special treatment needed** Treat symptomatically.

**5. Fire-fighting measures**

**Suitable extinguishing media** Water. Water fog. Foam. Dry chemical. Carbon dioxide (CO2).  
**Unsuitable extinguishing media** None known.  
**Specific hazards arising from the chemical** No unusual fire or explosion hazards noted.  
**Special protective equipment and precautions for firefighters** None known.  
**Fire-fighting equipment/instructions** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures** Wear protective clothing as described in Section 8 of this safety data sheet.  
**Methods and materials for containment and cleaning up** Absorb spill with vermiculite or other inert material, then place in a sealed container for chemical waste.  
 Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.  
**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage**

**Precautions for safe handling** Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling.  
**Conditions for safe storage, including any incompatibilities** Keep container closed. Store away from incompatible materials (See Section 10).

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. ACGIH Threshold Limit Values**

Components	Type	Value
2-Methylpentane-2,4-diol (CAS 107-41-5)	Ceiling	25 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
2-Methylpentane-2,4-diol (CAS 107-41-5)	Ceiling	125 mg/m3
		25 ppm

**US. Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value	Form
Poly(oxy-1,2-ethanediyl) ethoxylated (CAS 25322-68-3)	TWA	10 mg/m3	Particulate.

**Biological limit values** No biological exposure limits noted for the ingredient(s).  
**Appropriate engineering controls** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

**Skin protection**

**Hand protection** Chemical resistant gloves are recommended.

**Other** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	Not available.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	No data available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non reactive under normal conditions of storage and transport.
<b>Chemical stability</b>	Stable under the prescribed storage conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization will not occur.
<b>Conditions to avoid</b>	Elevated temperatures.
<b>Incompatible materials</b>	Strong oxidizing agents. Acids.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	No harmful effects expected in amounts likely to be ingested by accident.
<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Under normal conditions of intended use, this material does not pose a skin hazard.

<b>Eye contact</b>	Causes eye irritation.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Causes eye irritation.
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	No adverse effects are expected.
<b>Skin corrosion/irritation</b>	Not assigned.
<b>Serious eye damage/eye irritation</b>	Causes eye irritation.
<b>Respiratory sensitization</b>	Not assigned.
<b>Skin sensitization</b>	Not assigned.
<b>Germ cell mutagenicity</b>	Not assigned.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	Not assigned.
<b>Specific target organ toxicity - single exposure</b>	Not assigned.
<b>Specific target organ toxicity - repeated exposure</b>	Not assigned.
<b>Aspiration hazard</b>	Not applicable.

**12. Ecological information**

<b>Ecotoxicity</b>	Not expected to be harmful to aquatic organisms.
<b>Persistence and degradability</b>	No data available.
<b>Bioaccumulative potential</b>	Not available.
<b>Mobility in soil</b>	Not available.
<b>Other adverse effects</b>	Not available.

**13. Disposal considerations**

<b>Disposal instructions</b>	Do not discharge into drains, water courses or onto the ground.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Recover and recycle, if practical.
<b>Contaminated packaging</b>	Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. Transport information**

<b>DOT</b>	Not regulated as a hazardous material by DOT.
<b>IATA</b>	Not regulated as a dangerous good.
<b>IMDG</b>	Not regulated as a dangerous good.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available.

**15. Regulatory information**

<b>US federal regulations</b>	This product is hazardous according to OSHA 29 CFR 1910.1200.
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not on regulatory list.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** Yes

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

2-Methylpentane-2,4-diol (CAS 107-41-5)  
 Cadmium chloride (CAS 10108-64-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Sodium cacodylate (CAS 6131-99-3) 500 LBS

**US. Pennsylvania RTK - Hazardous Substances**

2-Methylpentane-2,4-diol (CAS 107-41-5)

**US. Rhode Island RTK**

2-Methylpentane-2,4-diol (CAS 107-41-5)

**US. California Proposition 65****US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

1,4-Dioxane (CAS 123-91-1)  
 Cadmium chloride (CAS 10108-64-2)  
 Nickel chloride (CAS 7791-20-0)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

**16. Other information, including date of preparation or last version**

**Issue date** 01-23-2013

**Revision date** -

**Version #** 01

**Disclaimer** The information given is based on data available for the material, the components of the material, and similar materials.