



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Family	Acella™ Chemically Competent Cells
Products	Acella™ Chemically Competent Cells, Tubes Acella™ Chemically Competent Cells, 96-Well Semi-Skirted Plate
Chemical characterization	Pre-dispensed <i>E. coli</i> bacteria
Supplier	Edge BioSystems 201 Perry Parkway, Suite 5 Gaithersburg, MD 20877 Tel: 1.301.990.2685 1.800.326.2685 Fax: 1.301.990.0881 www.edgebio.com
Emergency telephone number	1.800.326.2685
Product use	Used to amplify plasmids
Canadian PIN	N/A

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	Name	CAS Number	Weight %
	Dimethyl Sulfoxide (DMSO)	67-68-5	>1
Other components	Name	CAS Number	Weight %
	Components not identified are not hazardous, or are below regulatory disclosure limits.	N/A	N/A

See Section 15 of this MSDS for OSHA regulatory status

3. HAZARDS IDENTIFICATION

Primary route(s) of entry Skin or eye contact from splashes.

Symptoms of exposure

Inhalation	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Eye contact	Can cause irritation of the eye, but not likely to permanently injure eye tissue.
Skin contact	Can cause moderate skin irritation. Not likely to cause permanent damage. Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause minor systemic damage.
Ingestion	May cause nausea or vomiting.
Medical conditions aggravated by exposure	None known.
Listed as carcinogen or potential carcinogen	Not listed by OSHA, the International Agency for Research on Cancer (IARC), or the National Toxicology Program (NTP).

4. FIRST AID

Inhalation	Remove person to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.
Eye contact	Flush opened eyes for several minutes under running water. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get medical attention if eyes become irritated.
Skin contact	Wash skin with soap and water, rinsing thoroughly. Remove contaminated clothing.
Ingestion	DO NOT induce vomiting and seek medical attention immediately. Drink 2 glasses of water or milk to dilute.

5. FIRE FIGHTING MEASURES

Flash Point and Method	N/A
General hazard	N/A
Extinguishing media	Use media suitable for the material that is burning, such as water spray, carbon dioxide, extinguishing powder or foam.
Extinguishing media to avoid	None
Special firefighting instructions	Move containers from area if it can be done without risk.
Firefighting equipment	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear appropriate protective equipment (See Section 8).
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Environmental precautions	Keep out of sewers and waterways.
Clean-up methods	Collect spilled liquid with liquid-binding material or inert absorbent and place it in a suitable container for disposal. Wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Handling	Good laboratory technique should be used when handling. Harmful or irritating material. Avoid contact and avoid breathing the material. Use only in a well ventilated area. Keep closed or covered when not in use.
Storage	No special storage measures are necessary. Store at -80°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	General ventilation
Personal Protection	
Respirator	Use supplied-air respiratory equipment as required.
Eye Protection	Wear safety glasses or vented safety goggles. Have an eye wash station available.
Gloves	Wear rubber gloves and inspect gloves for chemical break-through and replace at regular intervals. Have a safety shower available.
Clothing	Normal work clothing
Other	Eye wash, emergency shower
Exposure controls	The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Colorless
Odor	Slight odor
Vapor pressure	N/D
Vapor density	N/D
Specific gravity/density	N/D
Evaporation rate	N/D

10. STABILITY AND REACTIVITY

Reactivity	Stable
Conditions to avoid	Strong oxidizing agents. Strong alkalines.
Hazardous decomposition products	Carbon monoxide. Carbon dioxide. Sulfur containing gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	ORL-Rat LD50: 14500 mg/kg. ORL-Mouse LD50: 7920 mg/kg.
Chronic Toxicity	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity	No information on product available.
Persistence/degradability	No information on product available.

13. DISPOSAL CONSIDERATIONS

RCRA hazardous waste code	Not applicable.
Special instructions	Observe all federal, state and local laws and regulations.

14. TRANSPORT INFORMATION

DOT hazard class	Not regulated
TDG hazard class	Not regulated

15. REGULATORY INFORMATION

OSHA regulatory status (29 CFR 1910.1200)	Irritant
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CERCLA reportable quantity (40 CFR 117, 302)	Name	Reportable quantity (lbs)	
	Dimethyl Sulfoxide (DMSO)	N/A	
SARA extremely hazardous substances (40 CFR 355)	Name	Threshold planning quantity (lbs)	Reportable quantity (lbs)
	Dimethyl Sulfoxide (DMSO)	N/A	N/A

SARA hazard categories (40 CFR 370)	None						
SARA toxic chemicals (40 CFR 372)	<table border="0"> <thead> <tr> <th>Name</th> <th>CAS Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Dimethyl Sulfoxide (DMSO)</td> <td>67-68-5</td> <td>N/A</td> </tr> </tbody> </table>	Name	CAS Number	Percentage	Dimethyl Sulfoxide (DMSO)	67-68-5	N/A
Name	CAS Number	Percentage					
Dimethyl Sulfoxide (DMSO)	67-68-5	N/A					
Inventory Status	The chemicals in this product are listed on the US TSCA Chemical Substances Inventory and the Canadian Domestic Substances List.						
Toxic Substance Control Act	No specific regulations apply. This product is solely for research and development purposes only and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically qualified individuals.						
Controlled Products Regulations	This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.						
WHMIS classification	D2B						
State regulations	N/A						

16. OTHER INFORMATION

Abbreviations	<p>C – Ceiling limit ERG – Emergency Response Guidebook LC₅₀ – The concentration of a substance in air that will kill 50% of test animals within a certain exposure period. LD₅₀ – The dose that causes death in 50% of test animals. N/A – Not applicable N/D – Not determined N/E – Not established N/K – Not known PIN – Product Identification Number RQ – Reportable Quantity STEL – Short Term Exposure Limit TPQ – Threshold Planning Quantity TWA – Time Weighted Average WHMIS – Workplace Hazardous Materials Information System</p>
Date prepared	January 18, 2006
Replaces	New
MSDS Number	6050021, 6050022
Disclaimer	The above information is believed correct, but does not purport to be all-inclusive and shall only be used as a guide. Edge BioSystems shall not be held liable for any damage resulting from handling or from contact with the above product.