



## MATERIAL SAFETY DATA SHEET

EcoShield™ (ECP-100™)

### ***EcoShield™ (ECP-100™) Escherichia coli Specific Phage Preparation***

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#### **Section 1. Product and Company Identification**

Product Name: EcoShield™  
(ECP-100™)  
(Phage preparation effective against *Escherichia coli*)

Catalog Number: ECP100

Manufacturer: Intralytix, Inc.  
Columbus Center  
701 E. Pratt St.  
Baltimore, MD 21202

For More Information Call: 1-877-ITX-PHAGE  
Monday – Friday 9:00 AM – 5:00 PM

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#### **Section 2. Composition and Information on Ingredients**

Component % by weight *Escherichia coli* – specific phages < 0.00001  
Phosphate Buffered Saline > 99.9

CAS Number: Not applicable.

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#### **Section 3. Hazards Identification**

Physical State and Appearance: Clear, colorless to pale-amber liquid.

Emergency Overview:

Potential Health Effects from:

Inhalation: Inhalation is unlikely to cause injury, excessive amounts of vapor or mist may cause mild irritation in the nose and/or throat.

Skin Contact: Contact is unlikely to cause injury, but may cause mild redness or irritation.

Eye Contact: Contact is unlikely to cause injury, but may cause mild redness or irritation.

Ingestion: Ingestion is unlikely to cause injury, but may cause mild stomach ache or distress.

Routes of Entry: Ingestion. Inhalation.

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**Section 4. First Aid Measures**

Eye Contact:	Flush with plenty of water. Get medical attention if irritation develops or persists.
Skin Contact:	Wash with soap and water. Remove contaminated clothes and wash before reusing. Seek medical attention if irritation develops or persists.
Inhalation:	If exposed to excessive levels of vapors or mists, remove to fresh air and get medical attention if cough or other symptoms develop.
Ingestion:	If swallowed, wash out mouth with water. Seek medical attention if symptoms appear.

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**Section 5. Fire Fighting Measures**

Flammability of the Product:	Non-flammable.
Auto-ignition:	Not applicable.
Flash Points:	Not applicable.
Flammable Limits:	Not applicable.
Fire Fighting Instructions:	Not applicable.
Protective Clothing (Fire):	Not applicable.
Special Remarks on Fire Hazards:	Not applicable.
Special Remarks on Explosion Hazards:	Not applicable.

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**Section 6. Accidental Release Measures**

Small Spill and Leak:	Mop up or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak:	Absorb with an inert material and put the spilled material in an appropriate waste disposal container.
Spill Kit Information:	No specific spill kit is required for this product.

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**Section 7. Handling and Storage**

Handling:	Avoid contact with eyes, skin or clothing. Keep container closed.
Storage:	Keep container in a cool (2–6°C), dark, UV-protected area. Carefully read and follow all label directions.

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**Section 8. Exposure Controls/Personal Protection**

Engineering Controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.
Personal Protection	
Eyes:	Where necessary, use a face shield, chemical goggles and provide access to eye/face flushing equipment.
Body:	Lab coat.
Respiratory:	When airborne exposure limits are exceeded or ventilation is inadequate, use appropriate NIOSH approved respiratory protection equipment. Respiratory protection programs are subject to 29 CFR § 1910.134.
Hands:	Gloves may be worn when handling this solution. Please refer to glove manufacturer for recommendations.
Feet:	Closed-toe shoes of non-porous material with adequate metatarsal coverage should be worn when handling this solution.
Component Exposure Limits	
Bacteriophage	No known occupational exposure limits for this component.
PBS	(Phosphate Buffered Saline) No known occupational exposure limits for this component.

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**Section 9. Physical and Chemical Properties**

Odor:	Odorless.
Color:	Clear/opalescent.
Physical State and Appearance:	Liquid.
Molecular Weight:	Not applicable.
Molecular Formula:	Not applicable.
pH:	7.2 – 7.5
Boiling/Condensation Point:	The lowest known value is 99.9°C (211.8°F) (WATER).
Melting/Freezing Point:	May start to solidify at –0.1°C (31.8°F) based on data for WATER.
Vapor Pressure:	Not available.
Vapor Density (vs. air):	Not available.
Density (vs. water):	1.005–1.007 g/cm <sup>3</sup>
Decomposition Temperature:	Not available.
Evaporation Rate:	(0.36 (WATER) compared to (n-BUTYL ACETATE=1)
Solubility:	Soluble in Water.
Viscosity:	Not available.

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**Section 10. Stability and Reactivity**

Stability and Reactivity:	Stable when used appropriately.
Conditions of Instability:	Not available.
Incompatibility with Various Substances:	Not available.
Rem/Incompatibility:	Not available.
Hazardous Decomposition Products:	Not available.
Hazardous Polymerization:	Will not occur.

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**Section 11. Toxicological Information**

Toxicity:	Acute oral toxicity (LD50): 3,000 mg/kg [Rat] (Phosphate Buffered Saline). Acute toxicity of the vapor (LC50): > 42,000 mg/m <sup>3</sup> 1 hour(s) [Rat] (Phosphate Buffered Saline).
Chronic Effects on Humans:	None
Acute Effects on Humans:	None
Irritancy:	Draize Test: Not a skin irritant (Phosphate Buffered Saline).
Sensitization:	Not available.
Carcinogenic Effects:	This material is not known to cause cancer in animals or humans (Phosphate Buffered Saline).
Toxicity to Reproductive System:	Not available.
Teratogenic Effects:	Not available.
Mutagenic Effects:	Not available.

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**Section 12. Ecological Information**

Ecotoxicity:	Not toxic.
BOD5 and COD:	Not available.
Toxicity of the Products of Biodegradation:	The product itself and its products of degradation are not toxic.

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**Section 13. Disposal Considerations**

EPA Waste Number:	Not available.
Treatment:	Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

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**Section 14. Transportation Information**

DOT Classification: Not applicable.  
TDG Classification: Not available.  
IMO/IMDG Classification: Not applicable.  
ICAO/IATA Classification: Not applicable.

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**Section 15. Regulatory Information**

U.S. Federal Regulations: This product is intended solely for use as a food additive in accordance with 21CFR172.785. Components of this product are not listed on the TSCA Inventory or TSCA Inventory status cannot be confirmed.

CERCLA and SARA Regulations  
(40 CFR 355, 370, 372): This product does not contain any chemicals subject to reporting requirements of SARA Section 313.

State Regulations:

Pennsylvania RTK:	Not applicable
Massachusetts RTK:	Not applicable
New Jersey:	Not applicable

Illinois: Not applicable  
Michigan: Not applicable  
Minnesota: Not applicable  
Louisiana: Not applicable  
California prop. 65: Not applicable.

Date document prepared: November 30, 2009

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**Section 16. Other Information**

**Notice to Reader**

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