

# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product</b>	Quick-Precip™ Solution
<b>Chemical characterization</b>	Amide
<b>Supplier</b>	Edge BioSystems 201 Perry Parkway, Suite 5 Gaithersburg, MD 20877 Tel: 1.301.990.2685 1.800.326.2685 Fax: 1.301.990.0881 <a href="http://www.edgebio.com">www.edgebio.com</a>
<b>Emergency telephone number</b>	1.800.326.2685
<b>Product use</b>	Precipitation buffer
<b>Canadian PIN</b>	N/A

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Hazardous components</b>	<b>Name</b>	<b>CAS Number</b>	<b>Weight %</b>
	Acrylamide	79-06-1	<1%
<b>Other components</b>	<b>Name</b>	<b>CAS Number</b>	<b>Weight %</b>
	Water	7732-18-5	>99%

See Section 15 of this MSDS for OSHA Regulatory Status

## 3. HAZARDS IDENTIFICATION

<b>Emergency overview</b>	Clear, colorless liquid with no odor. May cause slight eye irritation.  Will not burn. Use extinguishing media suitable for the material that is burning.
<b>Primary route(s) of entry</b>	Skin, eyes.
<b>Symptoms of exposure</b>	
<b>Inhalation</b>	Breathing vapors may cause irritation to respiratory tract.
<b>Eye contact</b>	May cause slight irritation.

<b>Skin contact</b>	Not expected to be an irritant. May be absorbed through skin. Based upon animal studies chronic exposure may cause cancer, reproductive effects, or inheritable genetic damage.
<b>Ingestion</b>	May cause irritation to gastro-intestinal tract. Chronic exposure can cause the same effects listed for Skin Contact.
<b>Medical conditions aggravated by exposure</b>	None known.
<b>Listed as carcinogen or potential carcinogen</b>	National Toxicology Program (NTP) International Agency for Research on Cancer (IARC)

#### 4. FIRST AID

<b>Inhalation</b>	Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.
<b>Eye contact</b>	Hold eye open and flush slowly and gently with plenty of water for several minutes. Remove any contact lenses, and continue flushing for several more minutes. Seek medical attention if irritation develops and persists.
<b>Skin contact</b>	Wash affected areas with plenty of water, and soap if available, for several minutes. Remove and clean contaminated clothing and shoes. Seek medical attention if irritation develops and persists.
<b>Ingestion</b>	Give 3-4 glasses of water, but DO NOT induce vomiting. If vomiting occurs, give fluids again. Get medical attention to determine whether vomiting or evacuation of stomach is necessary. Do not give anything by mouth to an unconscious or convulsing person.
<b>Note to physician</b>	Treat symptomatically.

#### 5. FIRE FIGHTING MEASURES

<b>Flash Point and Method</b>	N/A
<b>General hazard</b>	Does not present any special hazards.
<b>Extinguishing media</b>	Use media suitable for the material that is burning.
<b>Extinguishing media to avoid</b>	None
<b>Special firefighting instructions</b>	Move containers from area if it can be done without risk.
<b>Firefighting equipment</b>	As in any fire, wear NIOSH approved, positive-pressure, self-contained breathing apparatus and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Wear appropriate protective equipment (see Section 8). Wash thoroughly after handling.
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<b>Environmental precautions</b>	None known.
<b>Clean-up methods</b>	Absorb with sand, vermiculite, kitty litter, sawdust, etc. Sweep up and place in suitable container for disposal.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Wear appropriate protective equipment (see Section 8). Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed when not in use.
<b>Storage</b>	Store in a cool, dry place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Engineering controls</b>	General ventilation.
<b>Personal Protection</b>	
<b>Respirator</b>	In operations where mists or vapors are generated, use a NIOSH approved respirator that has been selected by an industrial hygienist or other technically qualified person for the specific work conditions. If respirators are used, OSHA requires compliance with its respiratory protection program (29 CFR 1910.134).
<b>Eye Protection</b>	Wear safety glasses or vented safety goggles.
<b>Gloves</b>	Wear impervious materials like butyl rubber or Viton.
<b>Clothing</b>	Normal work clothing.
<b>Other</b>	Eye wash, emergency shower.
<b>Exposure controls</b>	Amide: ACGIH TLV: 0.03 mg/m <sup>3</sup> (skin) (TWA) OSHA PEL: 0.3 mg/m <sup>3</sup> (skin) (TWA)

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form</b>	Liquid
<b>Color</b>	None
<b>Odor</b>	None
<b>Properties</b>	pH: Neutral Relative density (20°C): 1 Solidification point: 0°C Water solubility: Completely miscible

**10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	Stable
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<b>Materials to avoid</b>	None known
<b>Conditions to avoid</b>	None known
<b>Hazardous decomposition products</b>	Carbon dioxide, carbon monoxide, ammonia.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Toxicity</b>	No information for product.
<b>Chronic Toxicity</b>	<p>Rats fed the amide in this product in their diet or drinking water showed nervous system effects and increased deaths. Complete recovery was dependent upon dosage.</p> <p><b>Carcinogenicity</b></p> <p>The International Agency for Research on Cancer (IARC) has categorized the amide in this product as Group 2A - probably carcinogenic to humans. This assignment was based upon experimental studies in animals. An IARC Working Group reported that there were no adequate data available to evaluate the carcinogenicity in humans.</p> <p>The amide in this product is classified by the ACGIH as A3 - Animal carcinogen.</p> <p><b>Mutagenicity</b></p> <p>The amide in this product produced mutations in reproductive cells in mice and rats. It also caused significant increases in abnormal sperm head shape, chromosome aberrations, and abnormal divisions in sperm and bone marrow cells of mice. Conflicting results in in-vitro cell mammalian tests. It was not mutagenic in an Ames assay.</p> <p><b>Reproductive Toxicity</b></p> <p>Repeated oral dosing of rats or mice with the amide in this product has produced reduction in fertility and malformation of the male reproductive system.</p> <p><b>Teratogenicity and Embryotoxicity</b></p> <p>There are conflicting reports that the amide in this product causes embryotoxicity at doses toxic to parents. There are no reports of teratogenic effects.</p>

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Not expected to present a hazard.
<b>Persistence/degradability</b>	No information on product is available.

### 13. DISPOSAL CONSIDERATIONS

**RCRA hazardous waste code** Not regulated

**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)** Hazardous

<b>CERCLA reportable quantity (40 CFR 117, 302)</b>	<b>Name</b>	<b>Reportable quantity (lbs)</b>
	None in laboratory quantities	N/A

<b>SARA extremely hazardous substances (40 CFR 355)</b>	<b>Name</b>	<b>Threshold planning quantity (lbs)</b>	<b>Reportable quantity (lbs)</b>
	None	N/A	N/A

**SARA hazard categories  
(40 CFR 370)** Delayed (Chronic)

<b>SARA toxic chemicals (40 CFR 372)</b>	<b>Name</b>	<b>CAS Number</b>	<b>Percentage</b>
	Amide	Proprietary	<1%

**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.

**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** D2A

## State regulations

<b>CA Proposition 65</b>	Warning! Contains a chemical known to the State of California to cause cancer.
<b>FL Hazardous Substance List</b>	Present
<b>MA Right to Know List</b>	Present
<b>MN Hazardous Substance List</b>	Present
<b>NJ Right to Know List</b>	Present
<b>PA Right to Know List</b>	Present
<b>RI Hazardous Substance List</b>	Present

## 16. OTHER INFORMATION

### Abbreviations

C – Ceiling limit  
ERG – Emergency Response Guidebook  
LC<sub>50</sub> – The concentration of a substance in air that will kill 50% of test animals within a certain exposure period.  
LD<sub>50</sub> – 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

### Preparation information

<b>Date prepared</b>	July 24, 2002
<b>Replaces</b>	New
<b>MSDS Number</b>	4050032

### 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.