



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product	Quick-Precip™ Solution
Chemical characterization	Amide
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	Precipitation buffer
Canadian PIN	N/A

2. COMPOSITION/INFORMATION ON INGREDIENTS

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

See Section 15 of this MSDS for OSHA Regulatory Status

3. HAZARDS IDENTIFICATION

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

Skin contact	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.
Ingestion	May cause irritation to gastro-intestinal tract. Chronic exposure can cause the same effects listed for Skin Contact.
Medical conditions aggravated by exposure	None known.
Listed as carcinogen or potential carcinogen	National Toxicology Program (NTP) International Agency for Research on Cancer (IARC)

4. FIRST AID

Inhalation	Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.
Eye contact	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.
Skin contact	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.
Ingestion	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.
Note to physician	Treat symptomatically.

5. FIRE FIGHTING MEASURES

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

6. ACCIDENTAL RELEASE MEASURES

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

7. HANDLING AND STORAGE

Handling	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.
Storage	Store in a cool, dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	General ventilation.
Personal Protection	
Respirator	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).
Eye Protection	Wear safety glasses or vented safety goggles.
Gloves	Wear impervious materials like butyl rubber or Viton.
Clothing	Normal work clothing.
Other	Eye wash, emergency shower.
Exposure controls	Amide: ACGIH TLV: 0.03 mg/m ³ (skin) (TWA) OSHA PEL: 0.3 mg/m ³ (skin) (TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES
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Form	Liquid
Color	None
Odor	None
Properties	pH: Neutral Relative density (20°C): 1 Solidification point: 0°C Water solubility: Completely miscible

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	No information for product.
Chronic Toxicity	<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>Carcinogenicity</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>Mutagenicity</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>Reproductive Toxicity</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>Teratogenicity and Embryotoxicity</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

Ecotoxicity	Not expected to present a hazard.
Persistence/degradability	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

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

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

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

SARA toxic chemicals (40 CFR 372)	Name	CAS Number	Percentage
	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

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

16. OTHER INFORMATION

Abbreviations

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

Preparation information

Date prepared	July 24, 2002
Replaces	New
MSDS Number	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.