

MATERIAL SAFETY DATA SHEET

SECTION 1—PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER > NITRATE “B” REAGENT			CATALOGUE NUMBER: RN76	
MANUFACTURER'S NAME Dalynn Biologicals Inc.		SUPPLIER'S NAME Dalynn Biologicals Inc.		
STREET ADDRESS 3253 – 34 Avenue N.E.		STREET ADDRESS 3253 – 34 Avenue N.E.		
CITY Calgary	PROVINCE Alberta	CITY Calgary	PROVINCE Alberta	
POSTAL CODE T1Y 6X2	CHEMICAL EMERGENCY ONLY: 1-613-996-6666	POSTAL CODE T1Y 6X2	CHEMICAL EMERGENCY ONLY: 1-613-996-6666	
SECTION 2—HAZARDOUS INGREDIENTS				
HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD ₅₀ OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LC ₅₀ OF INGREDIENT (SPECIFY INGREDIENT)
Acetic Acid	28.5	64-19-7	Oral – Rat 3,310 mg/kg	Inh – Rat 16,000 ppm / 4H
N,N-Dimethyl-1-naphthylamine	0.6	86-56-6	Not available	Not available
SECTION 3—PHYSICAL DATA				
PHYSICAL STATE Liquid	ODOUR AND APPEARANCE Colorless liquid with strong acidic odor			ODOUR THRESHOLD (ppm) Not available
VAPOUR PRESSURE (mmHg) Not available	VAPOUR DENSITY (AIR=1) Not available	EVAPORATION RATE Not available	BOILING POINT (°C) Not available	FREEZING POINT (°C) Not available
pH 1.5	SPECIFIC GRAVITY Not available	COEFF. WATER/OIL DIST. Not available		
SECTION 4—FIRE AND EXPLOSION DATA				
FLAMMABLE				
YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> IF YES, UNDER WHICH CONDITIONS? > Minimal fire hazard as main ingredient is water				
MEANS OF EXTINCTION Carbon dioxide, dry chemical powder or appropriate foam				
FLASHPOINT (°C) AND METHOD Not available		UPPER FLAMMABLE LIMIT (% BY VOLUME) Not available	LOWER FLAMMABLE LIMIT (% BY VOLUME) Not available	
AUTOIGNITION TEMPERATURE (°C) Not available		HAZARDOUS COMBUSTION PRODUCTS Carbon monoxide, carbon dioxide, 1-naphthylamine		
EXPLOSION DATA >	SENSITIVITY TO IMPACT Not available		SENSITIVITY TO STATIC DISCHARGE Not available	
SECTION 5—REACTIVITY DATA				
CHEMICAL STABILITY				
YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> IF NO, UNDER WHICH CONDITIONS? >				
INCOMPATIBILITY WITH OTHER SUBSTANCES				
YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> IF SO, WHICH ONES? > Reacts with most common metals to produce hydrogen. May react violently with oxidizing agents, amines, bases, and other acids.				
REACTIVITY, AND UNDER WHAT CONDITIONS Not available				
HAZARDOUS DECOMPOSITION PRODUCTS 1-Naphthylamine				

PRODUCT		NITRATE "B" REAGENT	
IDENTIFIER >			
SECTION 6—TOXICOLOGICAL PROPERTIES			
ROUTE OF ENTRY			
SKIN CONTACT	[X]	SKIN ABSORPTION	[X]
EYE CONTACT	[X]	INHALATION	[X]
		INGESTION	[X]
EFFECTS OF ACUTE EXPOSURE TO PRODUCT			
<p>Harmful by ingestion, inhalation, or skin absorption. Due to the acidic nature of the product direct contact with skin, eyes, and other body parts may result in chemical burns and inflammation that may result in permanent damage to the organ of exposure. Inhalation may cause severe respiratory inflammation and symptoms may include coughing, dyspnea, thoracic pain, bronchopneumonia, and pulmonary edema. Ingestion may result in burns to the mouth, pharynx and GI tract. Symptoms may include nausea, dizziness, abdominal pain, uremia, albuminuria, shock, coma and death.</p>			
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT			
<p>Conjunctivitis, darkening of skin, dental erosion, pharyngitis, and kidney damage. To the best of our knowledge the chronic toxicological effects of this product have not been thoroughly investigated. 1-naphthylamine, a decomposition product of N,N-dimethyl-1-naphthylamine, is a potential carcinogen therefore avoid prolonged exposure and direct contact with the reagent.</p>			
EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITISATION TO PRODUCT	CARCINOGENICITY
Not available	Yes	Not available	Possible
TERATOGENICITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS
Not available	Not available	Possible	Not available
SECTION 7—PREVENTIVE MEASURES			
PERSONAL PROTECTIVE EQUIPMENT:			
Wear appropriate protective clothing including safety glasses, chemical resistant gloves, and lab coat to protect skin and eye exposure.			
ENGINEERING CONTROLS (SPECIFY, EG, VENTILATION, ENCLOSED PROCESS)			
Local exhaust or chemical fume hood.			
LEAK AND SPILL PROCEDURE			
Absorb using sand or vermiculate and containerize appropriately. Ventilate area and wash spill site after material has been picked-up.			
WASTE DISPOSAL			
According to local, provincial and federal regulations			
HANDLING PROCEDURES AND EQUIPMENT			
Avoid direct contact. Wash thoroughly after handling.			
STORAGE REQUIREMENTS			
Store at refrigerated (4 - 8°C) conditions.			
SPECIAL SHIPPING INFORMATION			
None.			
SECTION 8—FIRST AID MEASURES			
<p>In case of contact with eyes, rinse immediately with copious amounts of water for at least 15 minutes. In case of contact with skin, wash with soap and plenty of water. If swallowed, wash mouth out with water assuming victim is conscious. Induce vomiting as directed by medical personnel. Seek medical attention in all instances.</p>			
SECTION 9—PREPARATION OF MSDS			
PREPARED BY (GROUP, DEPT, ETC.)	PHONE NUMBER	DATE	
Technical Department Dalynn Biologicals Inc.	(403) 291-0067	2014 January	