

MATERIAL SAFETY DATA SHEET

SECTION 1—PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER > POTASSIUM HYDROXIDE SOLUTION			CATALOGUE NUMBER: RP85 / 88 / 89	
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)
Potassium hydroxide	10.0 to 40.0	7647-01-0	Oral – Rat 273 mg / kg	Not available
SECTION 3—PHYSICAL DATA				
PHYSICAL STATE Liquid	ODOUR AND APPEARANCE Colorless liquid with clean, basic odor			ODOUR THRESHOLD (ppm) Not available
VAPOUR PRESSURE (mmHg) 2.6	VAPOUR DENSITY (AIR=1) Not available	EVAPORATION RATE Not available	BOILING POINT (°F) 271 - 293	FREEZING POINT (°F) 48
PH 14.0	SPECIFIC GRAVITY 1.51 (approx)	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? > Non-flammable (contains mostly water)				
MEANS OF EXTINCTION Carbon dioxide, dry chemical powder, alcohol foam, or water spray.				
FLASHPOINT (°C) AND METHOD Not applicable		UPPER FLAMMABLE LIMIT (% BY VOLUME) Not applicable	LOWER FLAMMABLE LIMIT (% BY VOLUME) Not applicable	
AUTOIGNITION TEMPERATURE (°C) Not applicable		HAZARDOUS COMBUSTION PRODUCTS Carbon monoxide, carbon dioxide		
EXPLOSION DATA > SENSITIVITY TO IMPACT No			SENSITIVITY TO STATIC DISCHARGE No	
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? > Metals, organic materials, peroxides, nitro compounds, acroleine, acetaldehyde, carbides, phosphorus, chloro-organic compounds				
REACTIVITY, AND UNDER WHAT CONDITIONS Not available				
HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide, potassium oxides, hydrogen gas				

PRODUCT IDENTIFIER >		POTASSIUM HYDROXIDE SOLUTION	
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>Solution is extremely basic making it highly corrosive and will result in chemical burns on contact. Irritating to skin, eyes, mucous membranes, and respiratory tract upon exposure to liquid or mist.</p> <p>Eyes – burning sensation, inflammation, redness, watering, and itching. May cause permanent damage to the eye and vision loss.</p> <p>Skin – itching, reddening, and blistering.</p> <p>Inhalation – may result in spasm, inflammation and edema of the larynx and bronchi. Symptoms may include wheezing, coughing, laryngitis, shortness of breath, headache, nausea. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.</p> <p>Ingestion – Toxic if swallowed in sufficient quantity.</p>			
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT			
The chronic toxicological effects of exposure to this product have not been thoroughly investigated.			
EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITISATION TO PRODUCT	CARCINOGENICITY
Not available	Yes	Not available	No
TERATOGENICITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS
No	No	No	Not available
SECTION 7—PREVENTIVE MEASURES			
PERSONAL PROTECTIVE EQUIPMENT:			
Wear appropriate protective clothing: Gloves, safety goggles, lab coat or other appropriate clothing that covers arms and other open body parts.			
ENGINEERING CONTROLS (SPECIFY, EG, VENTILATION, ENCLOSED PROCESS)			
Use in area with adequate ventilation or in chemical fume hood .			
LEAK AND SPILL PROCEDURE			
Neutralize with dilute acid solution (lemon juice or vinegar) until pH is neutral (6.5-7.5). Mop up neutralized solution. Ventilate area and wash spill site after material pickup is complete.			
WASTE DISPOSAL			
According to local, provincial and federal regulations			
HANDLING PROCEDURES AND EQUIPMENT			
Avoid direct contact. Wash thoroughly after handling.			
STORAGE REQUIREMENTS			
Keep at refrigerated temperatures. Keep container tightly closed at all times.			
SPECIAL SHIPPING INFORMATION			
Double pack in isolated container.			
SECTION 8—FIRST AID MEASURES			
<p>In case of contact with eyes, rinse with copious amounts of water for at least 15 minutes.</p> <p>In case of contact with skin, wash with copious amounts of water for at least 15 minutes. Remove contaminated clothing.</p> <p>If swallowed, wash mouth out repeatedly with water provided person is conscious.</p> <p>If inhaled remove patient to fresh air and administer approved oxygen supply if breathing is difficult.</p> <p>Seek medical attention.</p>			
SECTION 9—PREPARATION OF MSDS			
PREPARED BY (GROUP, DEPT, ETC.)	PHONE NUMBER	DATE	
Technical Department Dalynn Biologicals Inc.	(403) 291-0067	2014 January	