

MATERIAL SAFETY DATA SHEET

SECTION 1—PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER > DENATURED ALCOHOL (ETHANOL)			CATALOGUE NUMBER: BD40	
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)
Ethanol	87.0	64-17-5	Oral – Hmn 1,400 mg/kg	Not available
Methanol	5.0	67-56-1	Oral – Rat 5,628 mg/kg	Rat – 6,400 ppm/4h
Ethyl acetate	1.0	141-78-6	Oral – Rat 11.3 ml/kg	Not available
SECTION 3—PHYSICAL DATA				
PHYSICAL STATE Liquid	ODOUR AND APPEARANCE Clear, colorless liquid with strong, sweet aromatic scent			ODOUR THRESHOLD (ppm) Not available
VAPOUR PRESSURE (mmHg) 40	VAPOUR DENSITY (AIR=1) 1.59	EVAPORATION RATE 3.3	BOILING POINT (°C) 79.4	FREEZING POINT (°C) Not available
pH Not available	SPECIFIC GRAVITY 0.79	COEFF. WATER/OIL DIST. Not available		
SECTION 4—FIRE AND EXPLOSION DATA				
FLAMMABLE YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> IF YES, UNDER WHICH CONDITIONS? > Extremely flammable. Will ignite if exposed to open flames or sparks.				
MEANS OF EXTINCTION Water spray, carbon dioxide, dry chemical powder or appropriate foam				
FLASHPOINT (°F) AND METHOD 57 (cc)		UPPER FLAMMABLE LIMIT (% BY VOLUME) 19	LOWER FLAMMABLE LIMIT (% BY VOLUME) 3.3	
AUTOIGNITION TEMPERATURE (°C) Not available		HAZARDOUS COMBUSTION PRODUCTS Carbon dioxide, carbon monoxide		
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? > Strong oxidizing agents, strong acids, aldehydes, halogens				
REACTIVITY, AND UNDER WHAT CONDITIONS Not available				
HAZARDOUS DECOMPOSITION PRODUCTS Carbon dioxide, carbon monoxide				

PRODUCT DENATURED ALCOHOL (ETHANOL)			
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>Skin: May cause irritation, drying, and chaffing on contact.</p> <p>Eye: May cause irritation with redness and pain. May cause permanent damage to the eye.</p> <p>Inhalation: May cause respiratory tract inflammation, and symptoms may include headache, nausea, dizziness, weakness, coughing, incoordination, and CNS depression.</p> <p>Ingestion: Causes GI disturbances, nausea, and vomiting. Possible kidney damage. Alcohol swallowed in sufficient quantity can cause blindness and death.</p>			
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT			
<p>Skin: Defatting dermatitis with prolonged use.</p> <p>Eye: Repeated or prolonged contact may result in conjunctivitis and permanent damage to the eye.</p> <p>Inhalation & Ingestion: Repeated and chronic exposure may result in damage to the GI tract, kidney, liver, and cardiovascular system.</p>			
EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITISATION TO PRODUCT	CARCINOGENICITY
Not available	Yes	Not available	Not available
TERATOGENICITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS
Not available	Not available	Not available	Not available
SECTION 7--PREVENTIVE MEASURES			
PERSONAL PROTECTIVE EQUIPMENT:			
Wear appropriate protective clothing: Appropriate gloves, safety goggles, lab coat or appropriate clothing.			
ENGINEERING CONTROLS (SPECIFY, EG, VENTILATION, ENCLOSED PROCESS)			
Use in area with adequate ventilation or in chemical fume hood.			
LEAK AND SPILL PROCEDURE			
Shut off all sources of ignition. Wear self-contained breathing apparatus, rubber boots and gloves. Absorb with sand or vermiculite and place in closed container for disposal. 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 room temperature in a cool, dry environment and protect from light where possible. Store in well ventilated area away from ignition sources and oxidizers.			
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.</p> <p>If swallowed, wash mouth out with water provided person is conscious. Do not induce vomiting. Have conscious person drink several glasses of milk or water.</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 October	