

MATERIAL SAFETY DATA SHEET

SECTION 1—PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER > HEMOGLOBIN SOLUTION			CATALOGUE NUMBER: VH55	
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)
Hemoglobin	2.0	9008-02-0	Not available	Not available
Water	98.0	7732-18-5	None	None
SECTION 3—PHYSICAL DATA				
PHYSICAL STATE Liquid	ODOUR AND APPEARANCE Viscous dark red-brown liquid with characteristic odor			ODOUR THRESHOLD (ppm) Not available
VAPOUR PRESSURE (mmHg) Not available	VAPOUR DENSITY (AIR=1) Not available	EVAPORATION RATE Not available	BOILING POINT (°F) Not available	FREEZING POINT (°F) Not available
PH Not available	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, 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 type="checkbox"/> NO <input checked="" type="checkbox"/> IF SO, WHICH ONES? >				
REACTIVITY, AND UNDER WHAT CONDITIONS Not applicable				
HAZARDOUS DECOMPOSITION PRODUCTS No hazardous decomposition products known.				

PRODUCT IDENTIFIER >		HEMOGLOBIN 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>Eye: May cause eye irritation. Skin: May cause skin irritation. Ingestion: May be harmful if swallowed. No side effects expected as the main ingredient in this product is water. Contains bovine blood products therefore ingestion is not recommended. Inhalation: May be harmful if inhaled.</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	Possible	Not available	No available
TERATOGENICITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS
Not available	Not available	Not available	Not available
SECTION 7—PREVENTIVE MEASURES			
PERSONAL PROTECTIVE EQUIPMENT:			
As a precaution wear appropriate protective clothing: Chemical resistant gloves, safety goggles, lab coat or other appropriate clothing that covers arms and other open body parts.			
ENGINEERING CONTROLS (SPECIFY, EG, VENTILATION, ENCLOSED PROCESS)			
None required.			
LEAK AND SPILL PROCEDURE			
Wearing gloves and safety glasses. Soak liquid using absorbent or paper towels; containerize. Dispose of with regular garbage.			
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.			
SPECIAL SHIPPING INFORMATION			
Non-hazardous for ground or air transport.			
SECTION 8—FIRST AID MEASURES			
<p>In case of contact with eyes, rinse with copious amounts of water for at least 15 minutes. In case of contact with skin, wash with copious amounts of water and remove contaminated clothing. If swallowed, wash mouth out repeatedly with water provided person is conscious. If person is conscious, drink 2 glasses of water to dilute stomach contents. If inhaled remove patient to fresh air and administer approved oxygen supply if breathing is difficult. 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	