

MATERIAL SAFETY DATA SHEET

SECTION 1—PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER > ACETYL CYSTEINE			CATALOGUE NUMBER: VA10	
MANUFACTURER'S NAME Dalynn Biologicals Inc.		SUPPLIER'S NAME Dalynn Biologicals Inc.		
STREET ADDRESS 3639 - 26 Street N.E.		STREET ADDRESS 3639 - 26 Street N.E.		
CITY Calgary	PROVINCE Alberta	CITY Calgary	PROVINCE Alberta	
POSTAL CODE T1Y 5E1	CHEMICAL EMERGENCY ONLY: 1-613-996-6666	POSTAL CODE T1Y 5E1	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)
N-Acetyl-L-cysteine	100	616-91-1	Oral – Rat 5,050 mg/kg IV – Dog 700 mg/kg	Not available
SECTION 3—PHYSICAL DATA				
PHYSICAL STATE Solid	ODOUR AND APPEARANCE White crystals with mild, characteristic pungent 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 checked="" type="checkbox"/> NO <input type="checkbox"/> IF YES, UNDER WHICH CONDITIONS? > Low flammability hazard; do not expose to direct flame				
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? > Oxidizing agents.				
REACTIVITY, AND UNDER WHAT CONDITIONS Not available				
HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides				

PRODUCT IDENTIFIER > ACETYL CYSTEINE			
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 Eye: May cause eye irritation. Skin: May cause skin irritation. Ingestion: May be harmful if swallowed. Inhalation: May be harmful if inhaled. Exposure can cause bronchospasm, nausea, vomiting, stomatitis, and nasal discharge.			
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT The chronic toxicological effects of exposure to this product have not been thoroughly investigated.			
EXPOSURE LIMITS Not available	IRRITANCY OF PRODUCT Possible	SENSITISATION TO PRODUCT Not available	CARCINOGENICITY No available
TERATOGENICITY Not available	REPRODUCTIVE TOXICITY Not available	MUTAGENICITY Not available	SYNERGISTIC PRODUCTS 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) Use in area with adequate ventilation or in chemical fume hood.			
LEAK AND SPILL PROCEDURE Wearing gloves and dust mask; sweep powder into appropriate sealed contained. 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.			
SPECIAL SHIPPING INFORMATION Non-hazardous for ground or air transport.			
SECTION 8—FIRST AID MEASURES			
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 for at least 15 minutes. Remove contaminated clothing. If swallowed, wash mouth out repeatedly with water provided person is conscious. If inhaled remove patient to fresh air and administer approved oxygen supply if breathing is difficult. Seek medical attention.			
SECTION 9—PREPARATION OF MSDS			
PREPARED BY (GROUP, DEPT, ETC.) Technical Department Dalynn Biologicals Inc.	PHONE NUMBER (403) 291-0067	DATE 2014 October	