MATERIAL SAFETY DATA SHEET PRODUCT INFORMATION					
Product Name: Synonym:	2-D ALCHO D/A.G. 2-D	DL 95%	MIION		
Chemical Name: Chemical Family:		ED ALCOHOL			
WHMIS Classification:	CLASS B-2 Flammable Liquid with a flash point Lower than 37.8°C CLASS D-1A: Material Causing immediate and serious				
	Toxic effects (VERY TOXIC) CLASS D-2B: Material causing other toxic effects (TOXIC)				
Vendor Name & Address					
	295 ALLIANCE ROAD #14 MILTON ON L9T 4W8 905-876-0707				
	I	HAZARDOUS INGR	EDIENT		
Chemical Identity	%W/W	CAS. NO.	LC50/LD50		
Ethyl Alcohol	60-100	000064175	ORAL (LD50): Acute: 7000 Mg/kg (Rat) DERMAL (LD50): Acute: 20000 mg/kg (Rabbit)		
Methanol	5-10	000067561	ORAL (LD50): Acute: 6200 Mg/kg (rat): 7300 mg/kg (Mouse) DERMAL (LD50): Acute: 15800 mg/kg (Rabbit) VAPOUR (LC50): Acute 64000 Ppm 4 hours (Rat)		
	Н	AZARDS IDENTIFIC	CATIONS		
Potential Acute Health Effects:	EXTREMELLY HAZARDOUS IN CASE OF INGESTION. VERY HAZARDOUS IN CASE OF SKIN CONTACT (PERMEATOR), OF EYE CONTACT (IRRITANT), OF INHALATION. HAZARDOUS IN CASE OF SKIN CONTACT (IRRITANT). INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING AND ITCHING.				
Potential Chronic Health Effects:	CL (ET M I	ASSIFIABLE FOR H THYL ALCOHOL) U TUGENIC EFFEC	FECTS: CLASSIFIED A4 (NOT IUMAN OR ANIMAL.) BY ACGIH TS: NOT AVAILABLE ECTS: NOT AVAILABLE		

TERATOGENIC EFFECTS: NOT AVAILABLE DEVELOPMENT TOXICITY: NOT AVAILABLE

REPEAT OF PROLONGED EXPOSURE IS NOT KNOWN TO

AGGRAVATE MEDICAL CONDITION.

	FIRST AID MEASURES
Eye Contact:	CHECK FOR AND REMOVE ANY CONTACT LENSES.
	IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT
	LEAST 15 MINUTES, KEEPING EYELIDS OPEN. COLD WATER
	MAY BE USED. GET MEDICAL ATTENTION IMMEDIATELY.

IN CASE OF CONTACT, IMMEDITELY FLUSH SKIN WITH Skin Contact: PLENTY OF WATER. COVER THE IRRITATED SKIN WITH AN EMOLLIENT. REMOVE CONTAMINATED CLOTHING AND

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	SHOES. COLD WATER MAY BE USED. WASH CLOTHING BEFORE REUSE. THOROUGHLY CLEAN SHOES BEFORE REUSE. GET MEDICAL ATTENTION.
Hazardous Skin Contact:	WASH WITH A DISINFECTANT SOAP AND COVER THE CONTAMINATED SKIN WITH AN ANIT-BACTERIAL CREAM. SEEK MEDICAL ATTENTIONL
Inhalation:	IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION IF SYMPTOMS APPEAR.
	FIRE AND EXPLOSION DATA
The Product is:	FLAMMABLE
Auto-Ignition Temperature:	THE LOWEST KNOWN VALUE IS 363°C (685.4°F) ETHYL ALCOHOL
Flash Points:	CLOSED CUP: 15°C (59°F) (Tagliabue.)
Flammable Limits:	THE GREATEST KNOWN RAGE IS LOWER: 6% UPPER: 36.5% (METHANOL)
Products of Combustion:	THESE PRODUCTS ARE CARBON OXIDES (CO,CO ²
Fire Hazards	IS HIGHLY FLAMMABLE IN PRESENCE OF OPEN
Presence of Various	FLAMES AND SPARKS, OF SHOCKS, OF HEAT, OF
Substances	OXIDING MATERIALS.
Explosion	RISK OF EXPLOSION OF THE PRODUCT IN PRESENCE
Hazards in Presence of	OF MECHANICAL IMPACT: NOT AVAILABLE
Various substances	VERY SLIGHTLY TO SLIGHLY EXPLOSIVE IN
Eirofighting Modice	PRESENCE OF OPEN FLAMES AND SPARKS.
Firefighting Media:	FLAMMABLE LIQUID, SOLUBLE OR DISPERSED IN WATER.
	SMALL FIRE: USE DRY CHEMICAL POWDER
	LARGE FIRE: USE ALCOHOL FOAM, WATER SPRAY OR FOG
Special Remarks on	VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO
Fire Hazards	SOURCE OF IGNITION AND FLASH BACK
	ACCIDENTAL RELEASE MEASURES
Small Spill:	ABSORB AN INERT DRY MATERIAL AND PLACE IN AN
-	APPROPRIATE WASTE DISPOSAL CONTAINER.
Large Spill:	FLAMMABLE LIQUID.
	KEEP AWAY FROM HEAT. KEEP AWAY FROM SOURCES OF
	IGNITION. STOP LEAK IF WITHOU RISK. ABSORB WITH
	DRY EARTH, SAND OR OTHER NON-COMBUSTIBLE
	MATERIAL. DO NOT TOUCH SPILLED MATERIAL. PREVENT ENTRY INTO SEWERS, BASEMENTS OR CONFINED
	AREAS; DIKE IF NEEDED. BE CAREFUL THAT THE PRODUCT
	IS NOT PRESENT AT A CONCENTRATION LEVEL ABOVE TLV.
	CHECK TLV ON THE MSDS AND WITH LOCAL AUTHORITIES
	HANDLING AND STORAGE
Precautions:	KEEP AWAY FROM HEAT. KEEP AWAY FROM SOURCES
	OF IGNITION. GROUND ALL EQUIPMENT CONTAINING
	MATERIAL. DO NOT INGEST. DO NOT BREATHE GAS/FUME
	VAPOUR/SPRAY. IN CASE OF INSUFFICIENT VENTILATION,
	WEAR SUITABLE RESPIRATORY EQUIPMENT. IF INGESTED,
	SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THE

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CONTAINER OR THE LABEL. AVOID CONTACT WITH

SKIN AND EYES. KEEP AWAY FROM INCOMPATIBLES SUCH

AS OXIDIZING AGENTS.

Storage: STORE IN A SEGREGATED AND APPROVED AREA. KEEP

CONTAINER IN A COOL, WELL-VENTILATED AREA. KEEP CONTAINER TIGHTLY CLOSED AND SEALED UNTIL READY FOR USE. AVOID ALL POSSIBLE SOURCES OF IGNITION

(SPARK OR FLAME).

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls PROVIDE EXHAUST VENTILATION OR OTHER ENGINEERING

CONTROLS TO KEEP THE AIRBORNE CONCENTRATIONS OF VAPOURS BELOW THEIR RESPECTIVE THRESHOLD LIMIT VALUE. ENSURE THAT EYEWASH STATIONS AND SAFETY SHOWERS ARE PROXIMAL TO THE WORK-STATION SITE.

Personal Protection: SPLASH GOGGLES. LAB COAT. VAPOUR RESPIRATOR. BE

SURE TO USE AN APPROVED/CERTIFIED RESPIRATOR OR

EQUIVALENT. GLOVES.

Personal Protection In SPLASH GOGGLES. FULL SUIT. VAPOUR RESPIRATOR.

Case of Large Spill: BOOTS. GLOVES. A SELF CONTAINED BREATHING

APPARATUS SHOULD BE USED TO AVOID INHALATION OF THE PRODUCT. SUGGESTED PROTECTIVE CLOTHING MIGHT NOT BE SUFFICIENT; CONSULT A SPECIALIST **BEFORE**

HANDLING THIS PRODUCT.

Exposure Limits: ETHYL ALCOHOL

TWA: 1000 TWA: 1900 METHANOL

TWA: 200 CEIL: 250 TWA: 260 CEIL: 310

CONSULT LOCAL AUTHORITIES FOR ACCEPTABLE

EXPOSURE LIMITS.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Sate & Appearance: LIQUID, WOOD ALCOHOL (KETONE-ESTER) NAPHTHA

ODOUR

Molecular Weight:

Taste:

NOT APPLICABLE

NOT AVAILABLE

NOT AVAILABLE

NOT AVAILABLE

Color: COLOURLESS
Boiling Point: 76.6°C (169°F)

Melting Point: MAY START TO SOLIDIFY AT –97.8°C (-144°F) BASED ON

DATA FOR: METHANOL. WEIGHTED AVERAGE: -112.7°C (-

170.9°F)

Critical Temperature: NOT AVAILABLE Specific Gravity: 0.8081 (water = 1)

Vapor Pressure: THE HIGHEST KNOWN VALUE IS 12.8 kPa (@20°C) (METHANOL)

WEIGHTED AVERAGE: 6.31 kPa (@20°C)

Vapor Density: THE HIGHESTKNOWN VALUE IS 1.59 (AIR = 1) (ETHYL ALCOHOL)

WEIGHTED AVERAGE: 1.55 (AIR = 1)

Volatility: 100% (v/v/)

Odor Threshold: THE HIGHEST KNOWN VALUE IS 2000 PPM (METHANOL) WEIGHTED

AVERAGE: 262.86 PPM

Evaporation Rate: 1.7 COMPARED TO BUTYL ACETATE.

Viscosity: DYNAMIC: THE HIGHEST KNOWN VALUE IS 1.41 Cp (ETHYL ALCOHOL

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Water/Oil Dist. Coeff: NOT AVAILABLE Ionicity (in water) NOT AVAILABLE

Dispersion Properties: SEE SOLUBILITY IN WATER, METHANOL, DIETHYL ETHER, ACETONE

Solubility: EASILY SOLUBLE IN COLD WATER, METHANOL, DIETHYL ETHER

ACETONE.

STABILITY AND REACTIVITY DATA

Stability: STABLE

Instability Temperature: NOT AVAILABLE Conditions of Instability: NOT AVAILABLE

Incompatibility with various HIGHLY REACTIVE WITH OXIDIZING AGENTS. SLIGHTLY REACTIVE

Substances: WITH ACIDS, ALKALIS. Corrosivity: NOT AVAILABLE

Special Remarks of Reactivity: NOT AVAILABLE
Special Remarks Corrosivity: NOT AVAILABLE
Hazardous Polymerization: WILL NOT OCCUR

TOXICOLOGICAL INFORMATION

Route of Entry: DERMAL CONTACT. EYE CONTACT. INHALATION. INGESTION

Toxicity to Animals: ACUTE ORAL TOXICITY (LD50): 6200 MG/KG (RAT) (METHANOL) ACUTE DERMAL TOXICITY (LD50): 15800 MG/KG (RABBIT)

(METHANOL)

Chronic Effects on Humans: CARCINOGENIC EFFECTS: CLASSIFIED A4 (NOT CLASSIFIABLE FOR

HUMAN OR ANIMAL.) BY ACGIH (ETHYL ALCOHOL)

Mutagenic Effects: NOT AVAILABLE
Teratogenic Effects: NOT AVAILABLE
Developmental Toxicity: NOT AVAILABLE

REPEATED OR PROLONGED EXPOSURE IS NOT KNOWN TO

AGGRAVATE MEDICAL CONDITION.

Other Toxic Effects on Human: EXTREMELY HAZARDOUS IN CASE OF INGESTION. VERY

HAZARDOUS IN CASE OF SKIN CONTACT (PERMEATOR), OF EYE CONTACT (IRRITANT), OF INHALATION. HAZARDOUS IN CASE OF SKIN CONTACT (IRRITANT). INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING, AND ITCHING

Special Remarks on Chronic

HUMAN: PASSES THROUGH THE PLACENTA, EXCRETED IN

Effects on Humans: MATERNAL MILK. (ETHYL ALCOHOL)

ECOLOGICAL INFORMATION

Ecotoxicity: NOT AVAILABLE BOD5 and COD NOT AVAILABLE

Products of Biodegradation: POSSIBLE HAZARDOUS SHORT TERM DEGRADATION PRODUCTS

ARE NOT LIKELY. HOWEVER, LONG TERM DEGRADATION PRODUCTS

MAY ARISE.

Toxicity of the Products THE PRODUCT ITSELF AND ITS PRODUCTS OF DEGRADATION ARE

Of Biodegradation: NOT TOXIC.

DISPOSAL CONSIDERATIONS

Waste Disposal: RECYCLE TO PROCESS, IF POSSIBLE. CONSUL YOUR LOCAL OR

REGIONAL AUTHORITIES.

TRANSPORTATION INFORMATION

TDG: CLASS 3: FLAMMABLE LIQUID Classification: CLASS 6.1: POISONOUS MATERIAL

Shipping Name: ALCOHOLS, TOXIC, N.O.S. (ETHYL ALCOHOL, METHANOL)

PIN: UN 1986

Packing Group:

Prepared by: LAB PERSONNEL Date: JANUARY 2016