

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION

Product Name: 2-D ALCHOL 95%
Synonym: D/A.G. 2-D (95%)
Chemical Name: DENATURED ALCOHOL
Chemical Family: SOLVENT
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: HOOD CHEMICAL
295 ALLIANCE ROAD #14
MILTON ON L9T 4W8
905-876-0707

HAZARDOUS INGREDIENT

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)

HAZARDS IDENTIFICATIONS

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: **CARCINOGENIC EFFECTS: CLASSIFIED A4 (NOT CLASSIFIABLE FOR HUMAN OR ANIMAL.) BY ACGIH (ETHYL ALCOHOL)
MUTUGENIC EFFECTS: 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.**

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

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,CO²)

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 SLIGHTLY EXPLOSIVE IN

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

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 Case of Large Spill: SPLASH GOGGLES. FULL SUIT. VAPOUR RESPIRATOR. 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 State & Appearance: LIQUID, WOOD ALCOHOL (KETONE-ESTER) NAPHTHA ODOUR

Molecular Weight: NOT APPLICABLE

Taste: NOT AVAILABLE

Ph (1% sln/water): 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 HIGHEST KNOWN 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)

