

MATERIAL SAFETY DATA SHEET



Date Issued: 10/21/2005
MSDS No: DA2D
Date-Revised: 09/21/2011
Revision No: 2

DA 2D

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DA 2D

PRODUCT CODE: DA2D

ALTERNATE TRADE NAME(S): Denatured Alcohol 2D (CANADA)

MANUFACTURER

Tarr, LLC
P.O. Box 12570
Portland, OR 97212
Service Number: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Poison. Flammable. Vapor harmful. May be fatal or cause blindness if swallowed. Avoid prolonged breathing of vapors. Avoid contact with eyes and skin.

POTENTIAL HEALTH EFFECTS

EYES: Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness, swelling and eye damage.

SKIN: Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

INGESTION: Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspiration pneumonitis.

INHALATION: May cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression. Excessive exposure to this product may cause headache, CNS depression, drowsiness, dizziness, loss of appetite, irritation of the respiratory tract, drunkenness, unconsciousness, or death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: Shortness of breathing, confused behavior, redness of skin, swelling of tissues, watery eyes, and nausea. Irritation as noted above. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis.

CHRONIC EFFECTS: Laboratory studies have shown that petroleum distillates may cause kidney, liver, or lung damage. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Not listed as a carcinogen by the NTP, IARC, or OSHA.

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MEDICAL CONDITIONS AGGRAVATED: Preexisting diseases in or history of ailments involving skin, central nervous system, liver and kidney.

COMMENTS HEALTH: Can cause optic nerve damage (blindness).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Ethanol	89 - 91	64-17-5
Methanol	8.5 - 9.5	67-56-1
Solvent naphtha, light aliphatic	0.85 - 0.95	64742-89-8

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.

SKIN: Remove contaminated clothing/shoes. Flush skin with water for at least 15 minutes. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

INGESTION: Call poison control center or get medical help immediately. If patient is conscious and alert, give 8 ounces of water or juice and induce vomiting, keeping patient's head below hips to prevent aspiration of liquid into lungs. Never induce vomiting on an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: (32°F) to (57°F)

FLAMMABLE LIMITS: 0.01 to 0.36

AUTOIGNITION TEMPERATURE: (450°F) to (900°F)

EXTINGUISHING MEDIA: Use "alcohol resistant" foam, dry chemical, or CO₂. Water may be ineffective, but water applied as a spray can absorb some of the fire's heat and should be used to keep fire-exposed containers cool.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide and unidentified organic compounds may be formed during combustion.

EXPLOSION HAZARDS: When heated above the flash point, releases flammable vapors. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point.

FIRE FIGHTING PROCEDURES: WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of

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ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid breathing of or contact with material. Only use in well ventilated areas.

Wash thoroughly after handling. For guidance on selection of personal protective equipment see Section 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to risk assessment of local circumstances to help determine appropriate controls for safe handling storage and disposal of this material.

STORAGE: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Ethanol	TWA	1000	1900	1000	1884	NL	NL
	STEL					NL	NL
Methanol	TWA	200	260	200	262		
	STEL			250	328		
Solvent naphtha, light aliphatic	TWA	[1]	[1]			100 [2]	400 [2]

OSHA TABLE COMMENTS:

1. Our supplier has adopted, as Interim Standards, the OSHA PELs that were established in 1989 and later rescinded.
2. In the absence of occupational exposure standards for this product, it is recommended that these values are adopted.

ENGINEERING CONTROLS: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

SKIN: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

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RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING: Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK HYGIENIC PRACTICES: Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

COMMENTS: May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Alcohol odor.

COLOR: Clear, colorless to slightly yellow-colored liquid.

pH: Not Applicable

PERCENT VOLATILE: 100

VAPOR DENSITY: Heavier than air.

BOILING POINT: (147°F) to (282°F)

FREEZING POINT: NDA = no data available.

MELTING POINT: (-173°F)

FLASHPOINT AND METHOD: (32°F) to (57°F)

SOLUBILITY IN WATER: Soluble

EVAPORATION RATE: Slower than ether.

DENSITY: 6.609

SPECIFIC GRAVITY: 0.700 to 0.75

10. STABILITY AND REACTIVITY

STABLE: Yes

POLYMERIZATION: Avoid heat, flame, and other sources of ignition.

CONDITIONS TO AVOID: Avoid heat, sparks, flame and contact with strong oxidizing agents. Do not store or handle in aluminum equipment at temperatures above 120 deg. F.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and unidentified organic compounds may be formed during combustion.

INCOMPATIBLE MATERIALS: This product is incompatible with strong acids or bases, oxidizers, alkali metals, and halogens.

11. TOXICOLOGICAL INFORMATION

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ACUTE

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Solvent naphtha, light aliphatic	> 2000 mg/kg (Rat)	> 2000 mg/kg (rat)	> 5000 ppm / 1 hour (rat)

INHALATION LC₅₀: Solvent naphtha, light aliphatic: Male rats exposed by prolonged and repeated inhalation to high vapor concentrations of similar solvents showed evidence of kidney damage. The relevance of this effect to humans is unknown.

CARCINOGENICITY

Notes: This product may contain benzene (CAS No. 71-43-2) at a concentration less than 30 ppm.

TARGET ORGANS: This product contains ethanol. Alcoholic beverage consumption has been associated with brain damage, heart damage, and pancreatitis in humans. The relevance of these findings to ethanol exposure in industrial environments is uncertain.

COMMENTS: Poison. May be fatal or cause blindness, if swallowed. Cannot be made nonpoisonous.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

EMPTY CONTAINER: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Ethanol Solutions

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN 1170

PACKING GROUP: II

NAERG: 127

15. REGULATORY INFORMATION

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UNITED STATES**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

311/312 HAZARD CATEGORIES: This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

FIRE: Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: Methyl alcohol (CAS 67-56-1), benzene (CAS 71-43-2)

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

GENERAL COMMENTS: The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

16. OTHER INFORMATION

REASON FOR ISSUE: Updated MSDS information.

PREPARED BY: Compliance Dept.

REVISION SUMMARY: This MSDS replaces the 11/12/2007 MSDS. Revised: **Section 15: GENERAL COMMENTS.**

HMIS RATING

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H

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