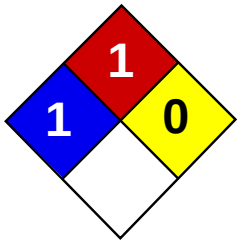

Material Safety Data Sheet
Diethyl phthalate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Diethyl phthalate

Catalog Codes: SLD3262, SLD1141

CAS#: 84-66-2

RTECS: TI1050000

TSCA: TSCA 8(b) inventory: Diethyl phthalate

CI#: Not available.

Synonym: Anozol; DEP; Diethyl 1,2-benzene dicarboxylate; Diethyl o-phthalate; Ethyl Phthalate; Neantine; o-Benzenedicarboxylic acid diethyl ester; Palatinol A; Phthalol; Solvanol

Chemical Name: Phthalic acid, diethyl ester

Chemical Formula: C12H14O4

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Diethyl phthalate	84-66-2	100

Toxicological Data on Ingredients: Diethyl phthalate: ORAL (LD50): Acute: 8600 mg/kg [Rat]. 6172 mg/kg [Mouse]. 1000 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to liver, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 457.22°C (855°F)

Flash Points:
CLOSED CUP: 117°C (242.6°F) (ITI). OPEN CUP: 161.11°C (322°F) (Natioinal Fire Protection Agency); 163 C. (Clayton & Clayton, 1994).

Flammable Limits: LOWER: 0.7%

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of open flames and sparks, of heat.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: When heated to decomposition it emits acrid smoke and irritating fumes.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Keep locked up.. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray.

Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Safety glasses. Lab coat.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
TWA: 5 (mg/m3) from ACGIH (TLV) [United States] TWA: 5 (mg/m3) from OSHA (PEL) [United States] TWA: 5 (mg/m3) from NIOSH [United States] TWA: 5 STEL: 10 (mg/m3) [United Kingdom (UK)] TWA: 5 STEL: 10 (mg/m3) [Canada]Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid. (Oily liquid.)

Odor: Odorless.

Taste: Bitter.

Molecular Weight: 222.24 g/mole

Color: Clear Colorless.

pH (1% soln/water): Not available.

Boiling Point: 298°C (568.4°F)

Melting Point: -40.5°C (-40.9°F)

Critical Temperature: Not available.

Specific Gravity: 1.12 or 1.118 - 1.122 (Water = 1)

Vapor Pressure: Not available.

Vapor Density: 7.66 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in oil; log(oil/water) = 2.5

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether, acetone.

Solubility:
Soluble in diethyl ether, acetone. Insoluble or very slightly soluble in cold water. Soluble in alcohol, benzene. Miscible with vegetable oils, ketones, esters, aromatic hydrocarbons. Partially miscible with aliphatic solvents. Solubility in water: 1000 mg/l at 25 deg. C.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:
May attack some forms of plastic. Incompatible with permanganates, nitric acid.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals: Acute oral toxicity (LD50): 1000 mg/kg [Rabbit].

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. May cause damage to the following organs: liver, central nervous system (CNS).

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
Passes through the placental barrier in animal. May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. May affect genetic material (mutagenic). May cause cancer based on animal test data. No human data found.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritation. May be absorbed through the skin. Eyes: May cause eye irritation. May cause lacrimation. Inhalation: Breathing in mist or vapor may cause respiratory tract (nose, throat) irritation. Symptoms may include coughing and hoarseness, and dyspnea. Contact with mist or vapor may cause lacrimation. Inhalation of high concentrations may affect behavior/central nervous system/nervous system (central nervous system depression, headache, dizziness, polyneuropathy, and pain, numbness, weakness, muscle spasms in the arms and legs) Ingestion: Ingestion of large doses may cause gastrointestinal tract irritation. May affect behavior/central nervous system (somnolence, withdrawl and other symptoms similar to that of inhalation), metabolism (weight loss). Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the liver, metabolism (weight loss), blood (changes in serum composition), urinary system (bladder), behavior (see acute ingestion). May cause pupilliary constriction.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Reportable Quantity: 1000 lbs./453.6 kg

Section 15: Other Regulatory Information

Federal and State Regulations:
Connecticut hazardous material survey.: Diethyl phthalate Illinois toxic substances disclosure to employee act: Diethyl phthalate Illinois chemical safety act: Diethyl phthalate New York release reporting list: Diethyl phthalate Rhode Island RTK hazardous substances: Diethyl phthalate Pennsylvania RTK: Diethyl phthalate Minnesota: Diethyl phthalate Massachusetts RTK: Diethyl phthalate Massachusetts spill list: Diethyl phthalate New Jersey: Diethyl phthalate New Jersey spill list: Diethyl phthalate Louisiana spill reporting: Diethyl phthalate California Director's List of Hazardous Substances: Diethyl phthalate TSCA 8(b) inventory: Diethyl phthalate TSCA 8(a) IUR: Diethyl phthalate TSCA 8(d) H and S data reporting: Diethyl phthalate: Effective date: 10/04/82; Sunset Date: 10/04/92 CERCLA: Hazardous substances.: Diethyl phthalate: 1000 lbs. (453.6 kg)

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):
This product is not classified according to the EU regulations. Not applicable.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: a

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:
Not applicable. Lab coat. Not applicable. Safety glasses.

Section 16: Other Information

References:
-Manufacturer's Material Safety Data Sheet. -Hazardous Substance Data Bank (HSDB) Registery of Toxic Effects of Chemical Substances (RTECS) -Hazardtext -National Fire Protection Association (NFPA), Fired Protection Guide to Hazardous Materials, 13th ed.

Other Special Considerations: Not available.

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