



## DIETHYL PHTHALATE

### 1.0 Product Identification

Synonyms	: 1,2-Benzenedicarboxylic acid, diethyl ester; Diethyl terephthalate; Ethyl phthalate; Phthalic acid, diethyl ester.
CAS No	: 84-66-2
Molecular Weight	: 222.24
Chemical Formula H944	: C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> or C <sub>12</sub> H <sub>14</sub> O <sub>4</sub>

### 2.0 Composition / Information on Ingredients

Ingredient	CAS No	Percent
Diethyl Phthalate	84-66-2	99-100%

### 3.0 First Aid Measures

Inhalation	: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact	: Wash exposed area with soap and water. Get medical advice if irritation develops.
Eye Contact	: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

### 4.0 Fire Fighting Measures

Fire	
Flash point	: 161C(322F)CC
Autoignition temperature	: 457C(855F)
Flammable limits in air % by volume	: Lel :0.7
Lower explosive limit applicable @186C(368F)	
Explosion	: Above the flash point, explosive vapor-air mixtures may be formed.
Fire Extinguishing Media	: Water spray, dry chemical, alcohol foam, or carbon dioxide. Water or foam may cause frothing. Water spray may be used to keep fire exposed containers cool.
Special Information	: In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.



## 5.0 Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8 . Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials , such as saw dust Do not flush to sewer ! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800)424-8802

## 6.0 Handling And Storage

Keep in a tightly closed container, stored in a cool, dry , ventilated area. Protect against physical damage. Isolate from incompatible substances. Container of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warning and precautions listed for the product.

## 7.0 Exposure Controls/ Personal Protection

Airborne Exposure Limits

: ACGIH Threshold Limit Value (TLV): 5mg/m<sup>3</sup>(TWA),  
A4-Not classifiable as a Human Carcinogen

Ventilation System

: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

**Personal Respirators (NIOSH Approved) :** If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type P95 or R95 filters) may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type P100 or R100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. Please note that N filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection

: Wear protective gloves and clean body- covering clothing.

Eye Protection

: Use chemical safety goggles and / or full face shield where splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.



## 8.0 Physical and Chemical Properties

Appearance	: Clear , Colorless liquid
Odor	: Slight aromatic odor
Solubility	: Insoluble in Water
Relative Density	: 1.114 1.120 at 27/27 OC
Boiling Point	: 297-299C (568-570F)
Melting Point	: -40C(-40F)
Vapor Density (Air =1)	: 7.66
Vapor Pressure (mm Hg)	: No information found
Evaporation Rate(BuAc=1)	: No information found.

## 9.0 Stability and Reactivity

Stability	: Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products	: Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization	: Will not occur
Incompatibilities	: Strong oxidizers will attack some forms of plastics, rubber & coatings.
Conditions to Avoid	: Incompatibles.

## 10.0 Toxicological Information

Oral rat LD50:8600 mg/kg. Investigated as a mutagen, reproductive effector.

----- \Cancer Lists \-----

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
Diethyl phthalate (84-66-2)	No	No	None



## 11.0 Ecological Information

### Environmental Fate

: When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material may evaporate to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released into water, this material is not expected to evaporate significantly. This material has an experimentally determined bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition. When released into the air, this material is expected to have a half-life of less than 1 day.

### Environmental Toxicity

: This material may be toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l. The LC50/96-hour values for fish are over 100 mg/l

## 12.0 Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 13.0 Transport Information

Not regulated.

## 14.0 Regulatory Information

----- \Chemical Inventory Status - part 1 \ -----

Ingredient	TSCA	EC	Japan	Australia
Diethyl Phthalate (84-66-2)	Yes	Yes	Yes	Yes

----- \Chemical Inventory Status - part 2 \ -----

-- Canada --

Ingredient	Korea	DSL	NDSL	Phil
Diethyl Phthalate (84-66-2)	Yes	Yes	Yes	Yes



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----- \Federal, State & International Regulations-Part-1 \ -----

-- SARA - 302--                      -- SARA - 313 --

Ingredient	RQ	TPQ	List	Chemical catg.
Diethyl Phthalate (84-66-2)	No	No	No	No

----- \Federal, State & International Regulations-Part-2 \ -----

- RCRA -    - TSCA -

Ingredient	CERCLA	261.33	8(d)
Diethyl Phthalate (84-66-2)	1000	0088	No
Chemical Weapons convention	: No		
TSCA 12(b)	: No		
CDTA	: No		
SARA 311/312			
Actute	: Yes		
Chronic	: No		
Fire	: No		
Pressure	: No		
Reactivity	: No ( Pure/liquid)		
Australian Hazchem Code	: No Information found.		
Poison Schedule	: No information found.		
WHMIS	: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR		

15.0 Other Information

NFPA Ratings

Health	: 0
Flammability	: 1
Reactivity	: 0

Label Hazard Warning : CAUTION ! MAY BE HARMFUL IF SWALLOWED OR INHALED MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

Label Precautions

- Avoid breathing vapor
- Avoid contact with eyes
- Keep container closed
- Use only with adequate ventilation
- Wash thoroughly after handling

Label First Aid

: If inhaled, remove to fresh air. If not breathing , give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.