



## Diethyl Phthalate-3,4,5,6-d<sub>4</sub>

### Section 1. Chemical product and company identifications

**Product code:** D-2726

**Chemical formula:** C<sub>12</sub>H<sub>10</sub>D<sub>4</sub>O<sub>4</sub>

**CAS:** 93952-12-6

**CAS (unlabelled):** 84-66-2

**Synonyms:** Ethyl Phthalate, Phthalic Acid Diethyl Ester

**Supplier / Manufacturer:**

**C/D/N Isotopes Inc.**

88 Leacock Street

Pointe-Claire (Québec) H9R 1H1

Phone: 514-697-6254

Toll-Free (Canada & USA): 1-800-565-4696

Fax: 514-697-6148

Website: www.cdnisotopes.com

**In case of emergency:**

**TOXYSKAN HOTLINE: 1-855-780-0599**

### Section 2. Hazards identifications

**Physical state:** Liquid

**Warning:** Causes skin and eye irritation.



**Routes of entry:** Inhalation, skin and eyes

**GHS (Globally Harmonized System of Classification and Labelling of Chemicals):**

**GHS Classification:**

- Skin irritation (Category 3)
- Eye irritation (Category 2B)
- Reproductive toxicity (Category 1B)

**GHS Label elements:**

- Pictograms:  
- Signal word: Warning

**Hazards statement:**

- H316 Causes mild skin irritation.
- H320 Causes eye irritation.
- H360 May damage fertility or the unborn child.

**Precautionary statement:**

- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.

### Section 3. Composition and information on ingredients

<u>Name</u>	<u>CAS</u>	<u>Concentration %</u>
Diethyl Phthalate-3,4,5,6-d <sub>4</sub>	93952-12-6	> 98

### Section 4. First aid measures

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin contact:** Wash off with soap and plenty of water. Consult a physician.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

## **Section 5. Firefighting measures**

**Flammability of the product:** Not flammable or combustible.

**Lower explosion limit:** 0.75 Vol%

**Upper explosion limit:** No data available.

**Auto-ignition temperature:** 457 °C (855 °F).

**Flash point:** 156 °C (313 °F) - closed cup.

**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides.

**Firefighting media and instructions:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

## **Section 6. Accidental release measures**

**Personal precautions:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods for cleaning up:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## **Section 7. Handling and storage**

**Handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Storage:** Store at room temperature. Adequate ventilation.

## **Section 8. Exposure Controls, Personal Protections**

**Engineering controls:** Use mechanical exhaust or laboratory fumehood to avoid exposure.

**Eyes:** Safety glasses with side-shields conforming to NIOSH (US).

**Respiratory:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).

**Hands:** Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Skin/body:** Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **Section 9. Physical and chemical properties (unlabelled)**

**Molecular weight:** 222.24 g/mol

**Physical status:** Liquid

**Color:** Colorless

**Odour:** Odorless

**Density:** 1.12 g/cm<sup>3</sup> at 25 °C (77 °F)

**Melting point:** -3 °C (27 °F) - lit.

**Boiling point:** 298 - 299 °C (568 - 570 °F) - lit.

**Vapour pressure:** < 28 hPa (< 21 mmHg) at 25 °C (77 °F)

**Vapour density:** 7.7 (Air = 1)

**Partition coefficient (octanol/water):** log Pow: 2.42

**Water solubility:** 1.08 g/L

## **Section 10. Stability and reactivity**

**Stability and reactivity:** Stable under recommended storage conditions.

**Incompatibility:** Strong oxidizing agents, Strong bases.

**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides.

**Reactivity conditions:** No data available.

## **Section 11. Toxicological information (unlabelled)**

**Toxicological data:** Diethyl Phthalate

### **Information on ingredients:**

<b><u>Name</u></b>	<b><u>CAS</u></b>	<b><u>LD<sub>50</sub></u></b>	<b><u>LC<sub>50</sub></u></b>
Diethyl Phthalate	84-66-2	Oral - Rat - 8,600 mg/kg	No data available

### **Potential acute effects**

- **Eyes:** May cause eye irritation.
- **Skin:** May be harmful if absorbed through skin. May cause skin irritation.
- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion:** May be harmful if swallowed.

### **Potential chronic effects**

- **Carcinogenic effects:** Carcinogenicity - Mouse – Skin, Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **Mutagenic effects:** Genotoxicity in vitro - Mouse - lymphocyte - with and without metabolic activation – negative. Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation – negative.
- **Teratogenic effects:** Developmental Toxicity - Rat – Oral, Specific developmental abnormalities: Musculoskeletal system. Developmental toxicity - Mouse – Skin, effects on embryo or fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific developmental abnormalities: Musculoskeletal system.
- **Medical conditions aggravated by overexposure:** No data available.

## **Section 12. Ecological information**

### **Ecological data:**

<b><u>Name</u></b>	<b><u>Results</u></b>	<b><u>Species</u></b>	<b><u>Period</u></b>
Diethyl Phthalate	12 mg/l LC50	Oncorhynchus mykiss	96 h
	90 mg/l LC50	Daphnia magna	48 h
	23 mg/l EC50	Desmodesmus subspicatus	72 h

**Effects on environment:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Mobility:** No data available.

**Environmental precautions:** No data available.

**Persistence and degradability:** Aerobic. Result: 94.6 % - Readily biodegradable.

**Bioaccumulative potential:** Lepomis macrochirus (Bluegill) - 21 d. Bioconcentration factor (BCF): 117.

## **Section 13. Disposal considerations**

**Waste disposal:** Offer surplus and non-recyclable solutions to a licensed disposal company.

## **Section 14. Transportation information**

### **Classification DOT/IMDG/IATA label:**

**Shipping name:** Not dangerous goods

**UN number:** None

**Class:** None

**Packaging group:** None

**Additional information:** None

## **Section 15. Regulatory information**

### **UNITED STATES: NFPA classification**



Health: 1  
Flammable: 1  
Reactivity: 0  
Specials conditions: None

**Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous**

### **U.S. Federal regulations:**

**TSCA 8(b) inventory:** Diethyl Phthalate

**SARA 302/304/311/312 extremely hazardous substances:** Not Listed

**SARA 302/304 emergency planning and notification:** Not Listed

**SARA 302/304/311/312 hazardous chemicals:** Not Listed

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard: Not Listed

**CWA (Clean Water Act) 307:** Not Listed

**CWA (Clean Water Act) 311:** Not Listed

**CAA (Clean Air Act) 112 accidental release prevention:** Not Listed

**CAA (Clean Air Act) 112 regulated flammable substances:** Not Listed

**CAA (Clean Air Act) 112 regulated toxic substances:** Not Listed

### **State regulations:**

**DEA List I Chemicals (Precursor Chemicals):** Not Listed

**DEA List II Chemicals (Essential Chemicals):** Not Listed

**Substances in Massachusetts:** Not Listed

**Dangerous substances in New Jersey:** Not Listed

**New York – Dangerous substances with acute effects:** Not Listed

**Dangerous substances in Pennsylvania – right to know:** Not Listed

### **WHMIS (Canada):**



D2A - Very toxic material causing other toxic effects

## **Section 16. Additional information**

### **References:**

- ANSI Z400.1, MSDS Standard, 2001.
- Manufacturer's Material Safety Data Sheet.
- 29CFR Part1910.1200 OSHA MSDS Requirements.
- 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. -Canada
- Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List".
- Federal act on the controlled products
- Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2002.
- Toxicological repertory, HSC.
- Material safety data sheet from the components.

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**Elaborated by: Toxyscan Inc., 1-866-780-0599**

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