

Unocal Corporation  
1201 West 5th Street  
Los Angeles, California 90017

Product Name: Xylene  
Product Code: 11420

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**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name: Xylene  
Product Code: 11420  
Synonyms: Xylol  
Dimethyl Benzene  
Generic Name: Volatile solvent  
Chemical Family: Aromatic hydrocarbon

Responsible Party: Unocal Petroleum Products and Chemicals Div.  
Hydrocarbon Sales  
1650 East Golf Road  
Schaumburg, Illinois  
60196-1088

For further information contact  
8am - 4pm CST, Mon - Fri: 1-800-967-7601

**EMERGENCY OVERVIEW****24 Hour Emergency Telephone Numbers:****For Transportation Emergencies**  
**CHEMTREC**

Cont. US: (800)424-9300  
Alaska & Hawaii (collect):  
(202)483-7616

**Health Emergencies for**  
**Unocal/UNO-VEN Products:**

Los Angeles Poison  
Information Center  
Cont. US: (800)356-3129  
Outside US: (213)222-3212

**Health Hazards:** Causes eye and skin irritation. Aspiration hazard if swallowed. Can enter lungs and cause damage. Keep container tightly closed. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Wash thoroughly after handling.

**Physical Hazards:** Flammable liquid and vapor. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment).

► **Physical Form:** Liquid

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- ▶ Appearance: Clear Colorless
- ▶ Odor: Light Aromatic

NFPA HAZARD CLASS: Health: 2 (Moderate)  
Flammability: 3 (High)  
Reactivity: 0 (Least)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### HAZARDOUS COMPONENTS

### EXPOSURE GUIDELINE

|                                | Limits  | Agency   | Type      |
|--------------------------------|---------|----------|-----------|
| Xylenes<br>CAS# 1330-20-7      | 100 ppm | ACGIH    | TWA       |
|                                | 150 ppm | ACGIH    | STEL      |
|                                | 100 ppm | OSHA     | TWA       |
|                                | 150 ppm | OSHA     | STEL      |
|                                | 100 ppm | MSHA     | TWA       |
|                                | 100 ppm | Cal.OSHA | TWA-SKIN  |
|                                | 300 ppm | Cal.OSHA | CEIL-SKIN |
| Ethyl Benzene<br>CAS# 100-41-4 | 100 ppm | ACGIH    | TWA       |
|                                | 125 ppm | ACGIH    | STEL      |
|                                | 100 ppm | OSHA     | TWA       |
|                                | 125 ppm | OSHA     | STEL      |
|                                | 100 ppm | MSHA     | TWA       |
|                                | 100 ppm | Cal.OSHA | TWA       |

## 3. HAZARDS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS:

**Eye:** Eye irritant. Contact may cause stinging, watering, redness and swelling.

**Skin:** Skin irritant. Contact may cause redness, burning, drying and cracking of the skin and skin damage. Contact may result in skin absorption but symptoms of toxicity are not anticipated by this route alone under normal conditions of use.

**Inhalation (Breathing):** Low to moderate degree of toxicity by inhalation.

**Ingestion (Swallowing):** Low to moderate degree of toxicity by ingestion. ASPIRATION HAZARD - This material can enter lungs during swallowing or vomiting and cause lung inflammation and

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damage.

**Signs and Symptoms:** Effects of overexposure may include irritation of the nose and throat, irritation of the digestive tract, nausea, vomiting and signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination and fatigue).

**Cancer:** Inadequate data available.

**Target Organs:** Potential hazard to the sense of hearing (see Section 11).

**Developmental:** Potential hazard to the fetus (see Section 11).

**Other Comments:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painters' Syndrome). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

**Medical Conditions:** Conditions aggravated by exposure may include skin disorders and respiratory (asthma-like) conditions.

#### 4. FIRST AID MEASURES

**Eye:** Move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek medical attention. For direct contact, hold eyelids apart and flush the affected eye(s) with clean water for at least 15 minutes. Seek medical attention.

**Skin:** Remove contaminated shoes and clothing and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention.

**Inhalation (Breathing):** If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel.

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Seek immediate medical attention.

**Ingestion (Swallowing):** This material is a potential aspiration hazard. If swallowed, seek emergency medical attention. If victim is drowsy or unconscious, place on the left side with the head down and do not give anything by mouth. Because of potential toxicity, if victim is conscious and alert, vomiting should be induced for ingestions of large amounts (more than 5 ounces in an adult) preferably with syrup of ipecac under direction from a physician or poison center. If possible, do not leave victim unattended.

## 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Flash Point: 79°F (TCC)  
OSHA Flammability Class: Flammable liquid  
LEL: 1.0 / UEL: 7.0  
Autoignition Temperature: 980°F

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Health: 2 (Moderate)  
Flammability: 3 (High)  
Reactivity: 0 (Least)

### HMIS HAZARD CLASS

Health: 2 (Moderate)  
Flammability: 3 (High)  
Reactivity: 0 (Least)

**Unusual Fire & Explosion Hazards:** This material is flammable and may be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). Vapors may travel considerable distances to a source of ignition where they can ignite, flashback, or explode. May create vapor/air explosion hazard indoors, outdoors, or in sewers. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can explode in the heat of a fire.

**Extinguishing Media:** Dry chemical, carbon dioxide, halon or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Halon may decompose into toxic products. Carbon dioxide can displace oxygen. Use caution when applying halon or carbon dioxide in confined spaces.

**Fire Fighting Instructions:** Emergency responders in the danger area should wear bunker gear and self contained breathing apparatus for fires beyond the incipient stage (29 CFR 1910.156). In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate

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damage area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from danger area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

## 6. ACCIDENTAL RELEASE MEASURES

Flammable. Keep all sources of ignition and hot metal surfaces away from spill/release. Use non-sparking tools and explosion proof equipment. Stay upwind and away from spill/release. Isolate danger area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Use foam on spills to minimize vapors (see Section 5). Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802). If spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the National Response Center (phone number 800-424-8802).

## 7. HANDLING AND STORAGE

**Handling:** Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes). Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276. The use of respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8). Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice.

"Empty" containers retain residue (liquid and/or vapor) and

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may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this product, refer to Occupational Safety and Health Administration Regulations, ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

**Storage:** Keep container(s) tightly closed. Use and store this material in cool, dry, well ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post area "No Smoking or Open Flame." Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used.

### Personal Protective Equipment (PPE):

**Respiratory:** The use of respiratory protection is advised when concentrations exceed the established exposure limits (see Section 2). Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and cannisters (NIOSH approved, if available) or supplied-air equipment.

**Skin:** The use of gloves impermeable to the specific material handled is advised to prevent skin contact, possible irritation, and skin damage.

**Eye/Face:** Approved eye protection to safeguard against potential eye contact, irritation, or injury is

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recommended.

**Other Protective Equipment:** Eye wash and quick drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse. It is recommended that impervious clothing be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

Flash Point: 79°F (TCC)  
Flammable/Explosive Limits (%): LEL: 1.0 / UEL: 7.0  
Autoignition Temperature: 980°F  
Burn Rate (solids only): No Data  
Appearance: Clear Colorless  
Physical State: Liquid  
Odor: Light Aromatic  
pH: Not applicable  
Vapor Pressure (mm Hg): 7  
Vapor Density (air=1): 3.7  
Boiling Point: 276-284°F  
Freezing/Melting Point: No Data  
Solubility in Water: <0.08%  
Specific Gravity: 0.872 60°F/60°F  
Heat Value (BTU): 18445  
Volatile Organic Compounds (VOC) Content: 100%, 872 g/liter  
Percent Volatile: 100 vol.%  
Evaporation Rate (nBuAc=1): 0.6  
Viscosity: 0.775 cst  
Bulk Density: 7.24 lbs/gal  
Molecular Weight: 106 g/mole

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal conditions of storage and handling. Flammable liquid and vapor. Vapor can cause flash fire.

**Conditions To Avoid:** Avoid all possible sources of ignition (see Sections 5 and 7).

**Incompatible Materials:** Avoid contact with strong acids, selected

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amines, strong bases, oxidizing agents and reducing agents.

**Hazardous Decomposition Products:** Combustion can yield carbon dioxide and carbon monoxide.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Xylenes (1330-20-7)

**Target Organ(s):** A six week inhalation study with xylene produced hearing loss in rats.

**Developmental:** Both mixed xylenes and the individual isomers produced limited evidence of developmental toxicity in laboratory animals. Inhalation and oral administration of xylene resulted in decreased fetal weight, increased incidences of delayed ossification, skeletal variations and resorptions.

## 12. DISPOSAL CONSIDERATIONS

RCRA hazardous waste if discarded in its purchased form. EPA Hazardous Waste number(s) D001, D018 and U239. (40 CFR 261.20-24)

Empty containers must be handled with care due to product residue. Empty drums should be completely drained, properly bunged and promptly returned to the supplier or shipped to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Any rinsate may be considered RCRA hazardous waste and must be disposed of with care.

State and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

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**13. TRANSPORT INFORMATION**

DOT Proper Shipping Name / Technical Name: Xylene  
Hazard Class or Division: Flammable liquid  
ID #: UN1307  
Packing Group: III

**14. REGULATORY INFORMATION**

This product contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372:

| COMPONENT     | CAS NUMBER | WEIGHT % |
|---------------|------------|----------|
| Xylenes       | 1330-20-7  | 75-90    |
| Ethyl Benzene | 100-41-4   | 10-25    |

**WARNING:** This product contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

| COMPONENT | EFFECT                 |
|-----------|------------------------|
| Benzene   | Cancer                 |
| Toluene   | Developmental Toxicant |

This product has not been identified as a carcinogen by NTP, IARC, or OSHA.

**EPA (CERCLA) Reportable Quantity:**

RQ #1 Xylenes  
1000 lb equal to 1111 lb, ( 153 gal), of this product.  
RQ #2 Ethyl Benzene  
1000 lb equal to 4000 lb, ( 552 gal), of this product.

**15. DOCUMENTARY INFORMATION**

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Previous Issue Date: 03/03/92  
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**16. DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES**

The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

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