

Ultra Pure, LLC,
50 Old Kings Highway North
Darien, CT 06820

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<http://www.ultrapure-usa.com>

Tel: 877-77-ULTRA

Xylene

1. Product Identification

Synonyms: Aromatic Hydrocarbon
CAS No: 1330-20-7
Molecular Weight: 100.0-100.0

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Xylene	1330-20-7	100%	Yes
Ethylbenzene	100-41-4	20%	Yes

3. Hazards Identification

Potential Health Effects

Inhalation: Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (see section 8).

Ingestion: Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Skin Contact: Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Additional, symptoms of skin contact may include skin blistering. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Eye Contact: May cause mild eye irritation. Symptoms include stinging, tearing and redness. Additional symptoms of eye exposure may include blurred vision.

Symptoms of Exposure: Signs and symptoms of exposure to this material through breathing, swallowing and/or passage of the material through the skin may include: redness of the face and neck, mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), tight feeling in the chest, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, effects on memory, respiratory depression (slowing of the breathing rate), shortness of breath, loss of coordination, confusion, irregular heartbeat, narcosis (dazed or sluggish feeling), coma.

Target Organ Effects: Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: testis damage, kidney damage, liver damage, effects on hearing. Overexposure to this material (or its components) has been suggested as a cause of the following in humans: central nervous system effects.

Developmental Information: This material (or a component) may be harmful to the human fetus based on positive test results with laboratory animals.

Cancer Information: Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. The International Agency for Research on Cancer (IARC) has classified ethylbenzene as a possible human carcinogen.

Other Health Effects: No data.

Primary Route(s) of Entry: Inhalation, skin absorption, skin contact, eye contact, ingestion.

4. First Aid Measures

Inhalation: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Ingestion: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Skin Contact: Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Eye Contact: If symptoms develop, move individuals away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Note to Physicians: Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See section 3 – Ingestion) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, male reproductive system, auditory system, individuals with preexisting heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

5. Fire Fighting Measures

Fire: Flash point: 26.6C (80F) TCC

Autoignition temperature: 526.6C (980F)

Explosive Limit (for Product) Lower 1.0; Upper 6.6

Hazardous Products of Combustion: May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazard: Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignited explosively.

Extinguishing Media: Regular foam (such as AFFF), water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions: Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Rating: Health – 2; Flammability – 3; Reactivity - 0

6. Accidental Release Measures

Small Spill: Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams, or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil or other materials to containers for disposal. Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

7. Handling and Storage

Handling: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfers as describe in National Fire Protection Association document NFPA 77. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. **Warning.** Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage: Store in a cool, dry, ventilated area. Keep containers closed when not in use. Do not store near extreme heat, open flame or sources of ignition.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

Xylene: OSHA Permissible Exposure Limit (PEL): 100 ppm (TWA)

-ACGIH Threshold Limit Value (TLV): 100 ppm (TWA), 150 ppm (STEL)

Ethylbenzene: OSHA Permissible Exposure Limit (PEL): 100 ppm (TWA)

-ACGIH Threshold Limit Value (TLV): 100 ppm (TWA), 125 ppm (STEL)

Engineering controls: Provide sufficient mechanical (general and or local exhaust) ventilation to maintain exposure below TLV(s).

Respiratory Protections: If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

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

Eye Protection: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

9. Physical and Chemical Properties

Boiling Point (for product): 279.0 F (137.2 C)

Vapor Pressure (for product): 9.000mmHg @ 68.00 F

Specific Vapor Density: 3.660 @Air=1

Specific Gravity: .870 @ 60.00 F

Liquid Density: 7.250 lbs/gal @60.00 F, .870 kg/l @16.00 C

Percent Volatiles: 100.0%

Volatile Organic Compounds(VOC): 100%; 870 g/l; 7.250 lbs/gal

Evaporation Rate: .86 (N-Butyl Acetate)

Appearance: Clear Colorless Liquid

State: Liquid

Physical Form: Neat

Color: Clear, Apha Color 15 Max

Odor: Light Aromatic

PH: No data

Viscosity: .7 CPS

Freezing Point: -54.0 F (-47.7 C)

Molecular Weight: 106.0

Solubility in Water: Less than 0.08%

Octanol/Water Partition Coefficient: 3.120 – 3.200

Heat Value: 18445.000 BTU

Bulk Density: 970 lbs/ft³

10. Stability and Reactivity

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Chemical Stability: Stable.

Incompatibility: Avoid contact with: strong oxidizing Agents

11. Toxicological Information

No data.

12. Ecological Information

No data.

13. Disposal Considerations

Waste Management Information: Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs – including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-531-7106.

14. Transport Information

Domestic (Land, D.O.T.) – 49 CFR 172.101:

DOT Description: Xylenes

Hazard Class: 3

UN/NA: UN1307 Packing Group: III

Reportable Quantity – 49 CFR 172,101:

Product Quantity (lbs) 100; Component Xylenes (O-, M-, P- Isomers);

Product Quantity (lbs) 500; Component Ethylbenzene

15. Regulatory Information

US Federal Regulations: TSCA (Toxic Substance Control Act) Status: The intentional ingredients of this product are listed.

CERCLA RQ-40 CFR 302.4 (a):

Component Xylenes (O-, M-, P- Isomers) RQ (lbs) 100

Component Ethylbenzene RQ (lbs) 1000

SARA 302 Components – 40 CFR 355 Appendix A: None

Section 311/312 Hazard Class – 40 CFR 370.2: Immediate (X) Delayed (X) Fire (X) Reactive ()

Sudden Release of Pressure ()

SARA 313 Components – 40 CFR 372.65:

Component Xylene (mixed isomers) – CAS Number 1330-20-7 100%

Component Ethylbenzene – CAS Number 100-41-4 22%

OSHA Process Safety Management 29 CFR 1910: None Listed

EPA Accidental Release Prevention 40 CFR 68: Non Listed

International Regulations

Inventory Status AICS (Australia), DSL (Canada), ECL (South Korea), EINECS (Europe), ENCS (Japan), IECSC (China), PICCS (Philippines): The intentional ingredients of this product are listed.

State and Local Regulations

California Proposition 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance (s) known to the State of California to cause cancer. BENZENE

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance (s) known to the State of California to cause reproductive harm. TOLUENE, BENZENE

New Jersey RTK Label Information: Xylenes 1330-20-7, Ethyl Benzene 100-41-4

Pennsylvania RTK Label Information: Benzene, Dimethyl – 1330-20-7, Benzene, Ethyl - 100-41-4

16. Other Information

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.