

Xylene

1. Identification

Product Name: Xylene™

Item #: XY1004, XY1005, XY0055

Synonyms: Wood Alcohol, Aromatic Hydrocarbon

Recommended Use: Clearing Agent

Restrictions on Use: N/A

Manufacturer:

 Cancer Diagnostics, Inc.
 4300 Emperor Blvd. #400
 Durham, NC 27703
 1-877-846-5393

In Case of Emergency:

 Chemtrec US 1-800-424-9300
 Infotrac International 1-352-323-3500

2. Hazards Identification

OSHA Hazard Classification(s):

 Acute toxicity - Dermal - Category 4
 Acute toxicity - Inhalation (Dusts/Mists) - Category 4
 Skin corrosion/irritation - Category 2
 Serious eye damage/eye irritation - Category 2A
 Carcinogenicity Category 2
 Specific target organ toxicity (single exposure) - Category 3
 Specific target organ toxicity (repeated exposure) - Category 2
 Aspiration toxicity - Category 1

Signal Word: Danger

Hazard Statement(s): Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Flammable liquid and vapor.

Pictogram(s):

Precautionary Statement(s):

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.

Response: IF exposed or concerned: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage: Store locked up. Store in a well-ventilated place. Keep cool. Keep container tightly closed.

Disposal: Dispose of contents/container to an approved waste disposal plant.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Xylenes (o-, m-, p- isomers)		1330-20-7	80-95
Ethylbenzene		100-41-4	5-20

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4. First Aid Measures

Eye Contact: Immediately flush with plenty of water for at least 15 minutes, separating eyelids occasionally. Remove contact lenses if present. Get immediate medical attention.

Skin Contact: Wash thoroughly with soap and water while removing contaminated garments. Get medical attention if irritation develops.

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

Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Potential for aspiration if swallowed. If vomiting occurs, have person lean forward. Clean mouth with water.

Symptoms: May cause CNS depression, dizziness, nausea, vomiting. Causes skin and eye irritation. If inhaled, may cause breathing difficulties.

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell. Health effects include liver enlargement, narcosis, mild anemia, eye, nose and throat irritation.

5. Fire- Fighting Measures

Extinguishing Media: Water spray (fog) Carbon dioxide (CO₂) Foam Dry chemical

Fire Hazards (Chemical): OSHA classified Flammable Liquid Category 2

Special Protective Equipment: Firefighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Prevent material from entering drains.

Containment and Clean-Up Procedures: Soak up with inert absorbent material. Absorb spill with inert material, scoop up and containerize for disposal. Clean contaminated surface thoroughly.

7. Handling and Storage

Handling: Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials: Strong acids. Strong oxidizing agents.

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8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Xylene	1330-20-7	100ppm
Ethylbenzene	100-41-4	100ppm

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Xylene	1330-20-7	100ppm	150ppm
Ethylbenzene	100-41-1	100ppm	125ppm

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures:

Eye/face protection: Tight sealing safety goggles.

Skin and body protection: Wear protective gloves and protective clothing. Wear fire/flame resistant/retardant clothing.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Colorless, Liquid

Molecular Weight: N/A

Molecular Formula: 0.740 to 0.76 at 15.6°C

pH: N/A

Boiling Point and Boiling Range: 137 C - 140 C

Melting Point/Freezing Point: -25 C

Flash Point: 24 C

Specific Gravity/Relative Density: 0.865- 0.875

Odor: Hydrocarbon

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: 3.67

Upper/Lower flammability or explosive limits:

Upper flammability limit: 7% (Vol)

Lower flammability limit: 1% (Vol)

Vapor Pressure: N/A

Evaporation Rate: 0.8 (BuAc=1)

Partition Coefficient: n-octanol/water: N/A

Viscosity: <0.9 mm²/s

Auto-ignition temperature: 463 C

Solubility: N/A

Decomposition Temperature: N/A

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10. Stability and Reactivity

Reactivity: N/A

Chemical Stability: Stable

Conditions of Stability/Instability: Avoid extremes of temperature and direct sunlight. Stable under normal conditions of temperature and pressure.

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Other: N/A

Hazardous Reactions: N/A

Hazardous Polymerization: Does not occur

Conditions to avoid: N/A

Classes of Incompatible Materials: Strong acids, Strong oxidizing agents, Strong Bases.

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.

Skin: Irritation.

Inhalation: Dizziness, headache, nausea, narcosis

Ingestion: Nausea, blindness.

Signs or Symptoms of Exposure:

Irritation: eyes, skin, nose

Mucous membrane: headache, dermatitis, narcosis, coma, dizziness, excitement, drowsiness, incoordination, staggering gait;

Corneal vacuolization: anorexia, nausea, vomiting, abdominal pain; dermatitis

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea. Target organs: eyes, skin, respiratory system, central nervous system, gastrointestinal tract, blood, liver, kidneys

Acute Toxicity (Numerical Measures):

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Xylenes (o-, m-, p- isomers) 1330-20-7	= 4300 mg/kg (Rat)	-	= 47635 mg/L (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15354 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h

Carcinogenicity (ACGIH, NTP, IARC, OSHA):

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Xylenes (o-, m- p-...) 1330-20-7	-	Group 3	-	-
Ethylbenzene 100-41-4	A3	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists): A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer):

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not classifiable as to carcinogenicity in humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor): X – Present

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12. Ecological Information

Ecotoxicity:

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Xylenes (o-, m-, p-isomers) 1330-20-7	-	<u>13.4: 96h</u> <i>Pimephales promelas</i> mg/L LC50 flow-through <u>2.661 - 4.093: 96h</u> <i>Oncorhynchus mykiss</i> mg/L LC50 static <u>13.5 - 17.3: 96h</u> <i>Oncorhynchus mykiss</i> mg/L LC50 <u>13.1 - 16.5: 96h</u> <i>Lepomis macrochirus</i> mg/L LC50 flow-through <u>19: 96h</u> <i>Lepomis macrochirus</i> mg/L LC50 <u>7.711 - 9.591: 96h</u> <i>Lepomis macrochirus</i> mg/L LC50 static <u>23.53 - 29.97: 96h</u> <i>Pimephales promelas</i> mg/L LC50 <u>static 780: 96h</u> <i>Cyprinus carpio</i> mg/L LC50 semi-static <u>780: 96h</u> <i>Cyprinus carpio</i> mg/L LC50 30.26 - <u>40.75: 96h</u> <i>Poecilia reticulata</i> mg/L LC50 static	<u>3.82: 48h</u> <i>water flea</i> mg/L EC50 <u>0.6: 48 h</u> <i>Gammarus lacustris</i> mg/L LC50
Ethylbenzene 100-41-4	<u>4.6: 72h</u> <i>Pseudokirchneriella subcapitata</i> mg/L EC50 <u>438: 96h</u> <i>Pseudokirchneriella subcapitata</i> mg/L EC50 <u>2.6 - 11.3: 72h</u> <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static <u>1.7 - 7.6: 96h</u> <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static	<u>11.0 - 18.0: 96h</u> <i>Oncorhynchus mykiss</i> mg/L LC50 static <u>4.2: 96h</u> <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static <u>7.55 - 11: 96h</u> <i>Pimephales promelas</i> mg/L LC50 flow-through <u>32: 96h</u> <i>Lepomis macrochirus</i> mg/L LC50 static <u>9.1 - 15.6: 96h</u> <i>Pimephales promelas</i> mg/L LC50 static <u>9.6: 96h</u> <i>Poecilia reticulata</i> mg/L LC50 static	<u>1.8 - 2.4: 48h</u> <i>Daphnia magna</i> mg/L EC50

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF):

Xylenes (o-, m-, p- isomers): 2.77 - 3.15

Ethylbenzene: 3.118

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. Disposal Considerations

Recommended Disposal Containers: Do not reuse container. Emptied containers may contain residue. Continue to follow label warnings after container is emptied.

Recommended Disposal Methods: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

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Waste Stream:

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Xylenes (o-, m- p-...) 1330-20-7	-	Included in waste stream: F039	-	U239
Ethylbenzene 100-41-4	-	Included in waste stream: F039	-	-

California Hazardous Waste Status:

Xylenes (o-, m-, p- isomers): Toxic - Ignitable

Ethylbenzene: Toxic Ignitable

14. Transport Information

DOT

UN Number: UN1307

UN Proper Shipping Name: Xylenes

Transport Hazard Class(es): 3

Packing Group Number: III

Environmental Hazards (IMDG code): Marine Pollutant: No

Transport in Bulk (IBC Code): N/A

Special Transport Precautions: N/A

IATA

UN Number: UN1307

UN Proper Shipping Name: Xylenes

Transport Hazard Class(es): 3

Packing Group Number: III

15. Regulatory Information

Federal
SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Threshold Values %:

Xylenes (o-, m-, p- isomers): 1.0

Ethylbenzene: 0.1

SARA 311/312 Hazard Categories:

Acute health hazard: No

Chronic Health Hazard: No

Fire Hazard: No

Sudden release Hazard: No

Reactive Hazard: No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Xylenes (o-, m- p-...) 1330-20-7	100 lb	-	-	X
Ethylbenzene 100-41-4	1000 lb	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Xylenes (o-, m-, p- isomers) 1330-20-7	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Ethylbenzene 100-41-4	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

State

California Proposition 65

This product contains the following Proposition 65 chemicals

Ethylbenzene - Carcinogen

Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Xylenes (o-, m-, p- isomers) 1330-20-7	X	X	X
Ethylbenzene 100-41-4	X	X	X

EPA

U.S. EPA Label Information

EPA Pesticide Registration Number: N/A

INTERNATIONAL:

Chile: No information available

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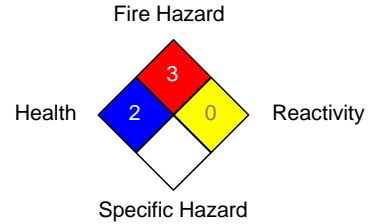
16. Other Information

Revision Date: 2019-01-11

NFPA

Health	2
Fire Hazard	3
Reactivity	0
Specific Hazard	

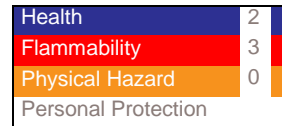
National Fire Protection Association (USA) NFPA



HMIS

Health	2
Flammability	3
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS



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