

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation	Xylenes
Product No.:	BDH2000
Other means of identification: 1,2-Dimethylbenzene	

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: For laboratory and manufacturing use only

1.3. Details of the supplier of the safety data sheet

Company: VWR International, LLC
Radnor Corporate Center
100 Mastonsford Road
Radnor, PA 19087-8660

Telephone: 610.386.1700

1.4. Emergency Telephone number

CHEMTREC 800.424.9300
CANUTEC 613.996.6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

For the full text of the H-Statement(s) and R-phrase(s) mentioned in this Section, see Section 16.

Hazard statements	Hazard classes and categories
H226	Flammable Liquids (Category 2)
H332	Acute Toxicity-Inhalation) (Category 4)
H312	Acute Toxicity-Dermal (Category 4)
H315	Skin Irritation (Category 2)
H351	Carcinogenicity (Category 2)
H373	Specific Target Organ Toxicity, Repeated (Category 2)
H304	Aspiration hazard, (Category 1)
H401	Hazardous to the aquatic environment, acute hazard (Category 2)
H411	Hazardous to the aquatic environment, long-term hazard (Category 2)

2.2. GHS Label elements, including precautionary statements

Pictograms:



Signal word: Danger

Hazard statements	
H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H312 + H332	Harmful in contact with skin, or if inhaled.
H315	Causes skin irritation
H351	Suspected of causing cancer
H373	Causes damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
Precautionary statements	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P331	Do NOT induce vomiting
P362	Take off contaminated clothing and wash before reuse.
P405	Store locked up.
P501	Dispose of contents/container to proper disposal facility
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician
P308 + P313	IF exposed or concerned: Get medical advice/attention
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P391	Collect spillage
P403 + P235	Store in a well-ventilated place. Keep cool

2.3. WHMIS Classification:

B2	Flammable Liquid
D2A	Very Toxic (Tetragenicity/Embryotoxicity)
D2B	Toxic (Skin Irritant)

2.4. Hazards not otherwise classified (HNOC) or not covered by GHS or WHMIS: None

SECTION 3: Composition/information on ingredients

3.1. Hazardous Components

Chemical name	Formula	Molecular weight	CAS#	Weight%
Xylene (mixture of isomers)	C ₈ H ₁₀	106.17 g/mol	1330-20-7	85-100
Ethylbenzene	C ₈ H ₁₀	106.17 g/mol	100-41-4	0-15

SECTION 4: First aid measures

4.1. General information

In case of inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In case of ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed: No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture: Carbon oxides

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

5.4. Hazardous combustion products: No data available

5.5. Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

5.6. Additional information: Use water spray to cool unopened containers

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

6.2. 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.

6.3. Methods and material for containment and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4. Additional information: For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities: Keep containers tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s): No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

United States			
Chemical Name	Limit value type & Country of Origin	Exposure Limit value	Source
Xylene	TWA-USA	100ppm	ACGIH (TLV)
	STEL-USA	150ppm	ACGIH (TLV)
	TWA-USA	100ppm / 35mg/m ³	OSHA Table 2-1
Ethylbenzene	TWA-USA	20ppm	ACGIH (TLV)
	STEL-USA	125ppm	ACGIH (TLC)
	TWA-USA	100ppm / 435 g/m ³	NIOSH
Canada			
Chemical Name	Limit value type & Country of Origin	Exposure Limit value	Source
Xylene	TWA-Canada	100ppm	Alberta-OEL
	STEL-Canada	150ppm	Alberta-OEL
	TWAEV-Canada	100ppm / 434mg/m ³	Canada-OEL
Ethylbenzene	TWA-Canada	20ppm	Canada-OEL
	STEL-Canada	125ppm	Canada-OEL
	TWA-Canada	100ppm / 435 mg/m ³	Alberta-OEL

8.2. Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protection equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection Tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose 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) or CEN (EU).

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

- a) Appearance:
Physical state: liquid
Color: clear
- b) Odor: No data available
- c) Odor: No data available
- d) pH: No data available
- e) Melting point/freezing point: <0°C
Initial boiling point: 137°C
- f) boiling range: 137-140°C
- g) Flash point: 25°C
- h) Evaporation rate: No data available
- i) Flammability (solid, gas): No data available
- j) Upper/lower flammability: No data available
explosive limits: 7.1% (V)/1.1% (V)
- k) Vapor pressure: 24hPa
- l) Vapor density: 3.67
- m) Relative density: 0.86gm/mL
- n) Solubilities: No data available
- o) Partition coefficient (n-Octanol/Water): No data available
- p) Auto-ignition temperature: No data available
- q) Decomposition temperature: No data available
- r) Viscosity: No data available
- s) Explosive properties: No data available
- t) Oxidizing properties: No data available

9.2. Other information: No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity: No data available

10.2. Chemical stability: No data available

10.3. Possibility of hazardous reactions: No data available

10.4. Conditions to avoid: Heat, flames and sparks.

10.5. Incompatible materials: Strong oxidizing agents

10.6. Hazardous decomposition products: No data available

SECTION 11: Toxicology

11.1. Information on toxicological effects

Acute toxicity

Oral LD₅₀: No data available

Inhalation LC₅₀: No data available

Dermal LD₅₀: No data available

Other information on acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: IARC: 2B - Group 2B: Possibly carcinogenic to humans (Ethylbenzene)
3 - Group 3: Not classifiable as to its carcinogenicity to humans (Xylene)
NTP: No data available
OSHA: No data available

Reproductive toxicity: No data available

Specific target organ toxicity-single exposure: No data available

Specific target organ toxicity-repeated exposure: No data available

Aspiration hazard: No data available

Additional information: RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence (Ethylbenzene)

SECTION 12: Ecological information

12.1. Ecotoxicity: No data available

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to Daphnia and other aquatic invertebrates
Mixed Xylenes	EC ₅₀ : 4.36 mg/L (73h) Pseudokirchneriella subcapitata	LC ₅₀ : 2.6 mg/L (98h) Oncorhynchus mykiss (Rainbow Trout)	IC ₅₀ : 1.0 mg/L (24h) Daphnia magna
Ethylbenzene	EC ₅₀ : 5.4 mg/L (72h) Pseudokirchneriella subcapitata	LC ₅₀ : 4.2 mg/L (98h) Oncorhynchus mykiss (Rainbow Trout)	IC ₅₀ : 3.6 mg/L (72h) Daphnia magna

12.2. Persistence and degradability: No data available

12.3. Bioaccumulative potential: No data available

12.4. Mobility in soil: No data available

12.5. Results of PBT and vPvB assessment: No data available

12.6. Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

SECTION 13: Disposal considerations

13.1. Waste treatment methods:

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

SECTION 14: Transport information

Land Transport DOT (U.S.)

UN Number: 1307
 Proper Shipping name: Xylenes
 Transport Hazard Classes
 Class: 3
 Hazard Label(s): Flammable 3
 Packing Group: III

Environmental hazard(s): Marine Pollutant: Yes
Special precautions for user: None Especially Mentioned

Sea Transport IMDG

UN Number: 1307
Proper Shipping name: Xylenes
Transport Hazard Classes
Class: 3
Hazard Label(s): Flammable 3
Packing Group: III
Environmental hazard(s): Marine Pollutant: Yes
Segregation Group: EMS No.: F-E, S-D
Special precautions for user: None Especially Mentioned

Transportation of Dangerous Goods (TDG)

UN Number: 1307
Proper Shipping name: Xylenes
Transport Hazard Classes
Class: 3
Hazard Label(s): Flammable 3
Packing Group: III
Environmental hazard(s): Marine Pollutant: Yes
Special precautions for user: None Especially Mentioned

Air Transport IATA

UN Number: 1307
Proper Shipping name: Xylenes
Transport Hazard Classes
Class: 3
Hazard Label(s): Flammable 3
Packing Group: III
Environmental hazard(s): Marine Pollutant: Yes
Special precautions for user: None Especially Mentioned

SECTION 15: Regulatory information

WHMIS Classification: Flammable, toxic

OSHA Hazards: Flammable, toxic, carcinogen

SARA 302 Extremely Hazardous Substances: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 (TRI reporting):

Chemical name	CAS#	Revision Date
Xylene	1330-20-7	24 Apr 1993
Ethylbenzene	100-41-4	01 Jul 2007

SARA 311/312 Hazardous Chemicals: Fire hazard, Acute health hazard, Chronic Health Hazard

Massachusetts Right-To-Know Substance List: No chemicals reported

Chemical name	CAS#	Revision Date
Xylene	1330-20-7	24 Apr 1993
Ethylbenzene	100-41-4	01 Jul 2007

Pennsylvania Right-To-Know Hazardous substances: No chemicals reported

Chemical name	CAS#	Revision Date
Xylene	1330-20-7	24 Apr 1993
Ethylbenzene	100-41-4	01 Jul 2007

New Jersey Worker and Community Right-To-Know Components: No chemicals reported

Chemical name	CAS#	Revision Date
Xylene	1330-20-7	24 Apr 1993
Ethylbenzene	100-41-4	01 Jul 2007

California Proposition 65: This product contains chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Chemical name	CAS#	Revision Date
Ethylbenzene	100-41-4	28 Sep 2007

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

SECTION 16: Other information

Full text of H-Statement(s) and P-phrase(s):

- H226 Flammable liquid and vapor.
- H304 May be fatal if swallowed and enters airways.
- H312 + H332 Harmful in contact with skin, or if inhaled.
- H315 Causes skin irritation
- H351 Suspected of causing cancer
- H373 Causes damage to organs through prolonged or repeated exposure
- H411 Toxic to aquatic life with long lasting effects
- P201 Obtain special instructions before use.

P202	Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other sources of
P210	ignition. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P331	Do NOT induce vomiting
P362	Take off contaminated clothing and wash before reuse.
P405	Store locked up.
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P308 + P313	IF exposed or concerned: Get medical advice/attention
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P391	Collect spillage
P403 + P235	Store in a well-ventilated place. Keep cool

HMIS Rating:

Health: 1

Flammability: 3

Physical Hazard: 0

Reactivity: 0

NFPA Rating:

Health: 1

Flammability: 3

Reactivity: 0

Special Hazard: N/A

DISCLAIMER

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International, LLC and its affiliates shall not be held liable for any damage resulting from handling.