Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

SAFETY DATA SHEET

XYLENE

1. Identification

Product identifier: Xylene
Product Code Number: 2400
Trade Name: Xylene
Synonyms: Dimethylbenzene, xylol, methyl toluene
Chemical Formula: C6H4(CH3)2

Product Use: Process chemical, Laboratory and scientific research and development
Restrictions on use: None known.

Company Identification: Corco Chemical Corporation
299 Cedar Lane
Fairless Hills, PA 19030
Phone: 215-295-5006
Fax: 215-295-0781

24 Hour Emergency Telephone Number:
CHEMTREC (U.S.): 1-800-424-9300
CHEMTREC (Outside U.S.): 1-703-527-3887

SDS Date of Preparation: 07/31/2024

2. Hazard(s) identification

Classification of the Substance or Mixture:
Flammable Liquid Category 2
Acute Dermal Toxicity Category 4
Acute Inhalation Toxicity Category 4
Aspiration Toxicity Category 1
Carcinogen Category 2
Eye Irritant Category 2
Skin Irritant Category 2
Specific Target Organ Toxicity Single Exposure Category 3 (Irritation)
Specific Target Organ Toxicity Repeated Exposure Category 2

Label Elements:
Danger!

Hazard Statements:
H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to ears through prolonged or repeated exposure by ingestion and inhalation.

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, sparks, open flames, and hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground or bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, or lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe mist or vapors.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves, protective clothing, and eye protection.
P308+P313 IF exposed or concerned: Get medical attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor if you feel unwell.
P303+P361+P353 IN ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P332+P313 If skin irritation occurs: Get medical attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical attention.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 Do NOT induce vomiting.
P370+P378 In case of fire: Use water spray, alcohol-resistant foam, carbon dioxide and dry chemical to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents and container in accordance with local and national regulations.

Other Hazards: None known.

3. Composition/information on ingredients

Ingredient	CAS Number	Percent	Hazardous Chemical
Xylene	1330-20-7	>75%	Yes
Ethylbenzene	100-41-4	<25%	Yes

The specific identity and/or exact percentage of the composition has been withheld as a trade secret.

4. First-aid measures

Inhalation: Remove victim to fresh air. If breathing is difficult or irritation persists, get medical attention.

Skin contact: Remove contaminated clothing and shoes. Flush skin thoroughly with water for several minutes. Get medical attention if irritation occurs. Launder clothing before re-use.

Eye contact: Flush eyes with large quantities of water for several minutes, while holding the eyelids apart. Remove contact lenses if easy to do so. Continue rinsing. Get medical attention if irritation persists.

Ingestion: Aspiration hazard: do NOT induce vomiting. Keep the victim calm and warm. If conscious, rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Get immediate medical attention.

Most important symptoms/effects, acute and delayed: May cause moderate eye, skin, and respiratory tract irritation. Harmful in contact with skin or if inhaled. Inhalation of mists or vapors may cause headache, dizziness, nausea and other symptoms of central nervous system depression. Aspiration hazard: material may enter the lungs if swallowed and cause lung injury. Prolonged and/or repeated overexposure may cause hearing damage. This product contains Ethylbenzene which is suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is if swallowed or if hearing is impaired.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media: Use water spray, alcohol-resistant foam, carbon dioxide and dry chemical.

Specific hazards arising from the chemical: Highly flammable liquid and vapors. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Vapors may form explosive mixtures with air in confined areas. Sensitive to static discharge.

Special protective equipment and precautions for fire-Fighters: Wear an approved, positive pressure, self-contained breathing apparatus and full protective clothing. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Evacuate spill area and keep unprotected personnel away. Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Minimize generation of static electricity which may cause sparking. Prevent contact with the eyes, skin and clothing. Wear appropriate protective clothing. Do not breathe vapors or mists. Ventilate area with explosion proof equipment.

Methods and materials for containment and cleaning up: Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth,) and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

7. Handling and storage

Precautions for safe handling: Prevent contact with the eyes, skin and clothing. Wear protective clothing and equipment as described in Section 8. Do not breathe vapors or mists. Use with adequate ventilation. Wash hands with soap and water after use. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use. Use with non-sparking tools and explosion proof equipment. Electrically bond and ground containers for transfer.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated location away from heat and open flames. Keep away from incompatible materials. Protect container from physical damage. Keep containers closed when not in use. Keep out of the reach of children.

8. Exposure controls/personal protection

Chemical Name	Exposure Limits
Xylene	100 ppm TWA, 150 ppm STEL ACGIH TLV 100 ppm TWA OSHA PEL
Ethylbenzene	20 ppm TWA ACGIH TLV 100 ppm TWA OSHA PEL

Appropriate engineering controls: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details. Use explosion-proof equipment.

Personal protective equipment:

Respiratory protection: If the exposure limit is exceeded and engineering controls are not feasible, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and chemical properties

Appearance: Clear, colorless liquid.
Odor: Aromatic odor
Odor Threshold: 1 ppm
Molecular Formula: C6H4(CH3)2
Molecular Weight: 106.17
Auto-ignition Temperature: 527°C (980.6°F)
Flash Point: 25°C (77°F)
Upper / Lower Flammability or Explosive Limits: LEL 1.1 vol %, UEL7.0 vol %

pH: Not available.
Initial boiling point and boiling range: 136-140°C (276.8-284°F) @ 760 mmHg
Melting point/freezing point: -34°C (-29.2°F)
Decomposition Temperature: Not available
Specific Gravity: 0.865 g/cm3
Vapor Density (Air=1): 3.66
Vapor Pressure: 8.29 mmHg @ 25°C (77°F)
Flammability (solid, gas): Not applicable.
Evaporation Rate (Butyl acetate = 1): 0.7
Viscosity: <32.6 SUS
Solubility: Insoluble
Conductivity: Nonconductive; Conductivity = 0.1 pS/m; Dielectric Constant = 2.38; Relaxation Time Constant = ~100 seconds

Partition coefficient (n-octanol/water): 3.1 – 3.2
Flammability class: Flammable IB estimated
Flash point class: Flammable IB
VOC (Weight %): 100 %

10. Stability and reactivity

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable under ordinary conditions of use and storage.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Keep away from heat, sparks, flames and other sources of ignition.

Incompatible materials: Strong oxidizing agents, strong acids, acetic acid, and nitric acid and halogens.

Hazardous decomposition products: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. Toxicological information

Information on likely routes of exposure:

Potential Health Effects:

Inhalation: Harmful if inhaled. Inhalation of mists or vapors may cause moderate nose and throat irritation with the possibility of central nervous system depression. Symptoms

of central nervous system depression include headache, dizziness, drowsiness, nausea and unconsciousness.

Skin Contact: Harmful in contact with skin. May cause moderate skin irritation.

Eye Contact: Direct contact with eyes may cause moderate eye irritation.

Ingestion: Aspiration into the lungs during ingestion or vomiting may cause serious lung damage which may be fatal. Ingestion may cause mucous membrane and gastrointestinal irritation, and central nervous system depression with symptoms similar to those described under inhalation.

Chronic Exposure: Prolonged or repeated exposure may cause ototoxicity which may result in damages to the ears.

Aggravation of Pre-existing Conditions: Persons with pre-existing eye and skin disorders or impaired respiratory function may be more susceptible to the effects of this material.

Carcinogenicity: Ethylbenzene is listed IARC as a Category 2B "Possibly carcinogenic to humans". None of the other components of this product are listed as a carcinogen or suspected carcinogen by OSHA, IARC, and NTP.

Reproductive Effects: Reproductive harm is not expected from this product.

Mutagenic Effects: Not expected to cause mutagenic activity.

Acute Toxicity:
Product ATE: 3517 mg/kg (oral), 1433 mg/kg (skin), 12 mg/L (inhalation, as vapors)
Xylene: Oral rat LD50: 3,523 mg/kg, Inhalation rat LC50: 27.6 mg/L/4hr, Skin rabbit LD50: 12,126 mg/kg.
Ethylbenzene: Oral rat LD50: 3,500 mg/kg, Inhalation rat LC50: 17.6 mg/L/4hr, Skin rabbit LD50: 15,400 mg/kg

12. Ecological information

Exotoxicity:

Product	**Species**	**Test Results**
Xylene	Oncorhynchus mykiss	8.4 mg/L 96hr LC50
	Ceriodaphnia dubia	3.82 mg/L 48hr EC50
Ethylbenzene	Atlantic Silverfish	5.1 mg/L 96hr LC50
	Daphnia magna	1.8-2.4 mg/L 48hr EC50

This material is expected to be toxic to aquatic life and harmful to the aquatic environment with long lasting effects. Releases to the environment should be avoided.

Persistence and Degradability: Xylene and Ethylbenzene: Readily biodegradable water screening tests.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other adverse effects: Not applicable

13. Disposal considerations

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Processing, use or contamination of this product may change the waste management options. Waste generators must decide if discarded material is a hazardous waste. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements. This material is not a "P" listed waste under 40 CFR 261.33. It is not a "U" listed waste.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F.

14. Transportation Information

	UN Number	**Proper shipping name**	**Hazard Class**	**Packing Group**	**Environmental Hazard**
US DOT	UN1307	Xylene	3	III	Not applicable
IMDG	UN1307	Xylene	3	III	Not applicable
IATA	UN1307	Xylene	3	III	Not applicable

*** Hazardous Substance (49CFR172.101):** Xylene (RQ100 lbs)- (100 lbs. product)

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Special Precautions for User: Not applicable

15. Regulatory information

US federal regulations:

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not on regulatory list.

CERCLA Hazardous Substance List (40 CFR 302.4)
This product has a Reportable Quantity (RQ) of 100 lbs. (based on the RQ for Xylene of 100 lbs present at >75%). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories:
SARA 311/312
Refer to Section 2 for OSHA Hazard Classification.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

Xylene	1330-20-7	>75%
Ethylbenzene	100-41-4	<25%

SARA 302 Extremely hazardous substance
None

Other federal regulations:

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Ethyl Benzene (CAS 100-41-4)
Xylenes (CAS 1330-20-7)
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated
Clean Water Act (CWA)Section 112(r) (40 CFR 68.130)
Hazardous substance
Safe Drinking Water Act (SDWA)
10 mg/l
10 mg/l
Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
Not listed.
Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
Not regulated

DEA Exempt Chemical Mixtures Code Number
Not regulated.
Food and Drug Administration (FDA)
Not regulated

US state regulations: This product can expose you to chemicals including Ethylbenzene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

US. Massachusetts RTK - Substance List
Ethyl Benzene (CAS 100-41-4)
Xylenes (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act
Ethyl Benzene (CAS 100-41-4) - 500 lbs
Xylenes (CAS 1330-20-7) - 500 lbs
US. Pennsylvania RTK - Hazardous Substances
Ethyl Benzene (CAS 100-41-4)
Xylenes (CAS 1330-20-7)
US. Rhode Island RTK
Ethyl Benzene (CAS 100-41-4)
Xylenes (CAS 1330-20-7)
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance – Ethyl Benzene (CAS 100-41-4)

International Inventories:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of	Yes

	Chemicals and Chemical Substances (PICCS)	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other information

Date of Current Revision: 07/31/2024
Revision Summary: Updated all sections.
Date of Previous Revision: 11/22/19

Disclaimer - The information in the SDS is based on the data available at the time. While believed to be accurate, Corco does not claim it to be all inclusive. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. It is not intended to provide product performance or applicability information, and no express or implied warranty of any kind is made with respect to the product, the underlying product data, or the information contained herein. We will not provide advice on such matters, or be responsible for any injury or damage resulting from the use of the product described herein.


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