ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: March 19, 2025

Section 1: Product & Company Information

Product Identifier: Xylene

Other Means of Identification
Product Number: 151253

Recommended Use and Restrictions on Use
Recommended Use: Solvent
Restrictions on Use: No data available.

Manufacturer / Importer / Supplier / Distributor Information
Company Name: CORECHEM Inc.
Address: 4320 Greenway Drive
Knoxville, TN 37918
USA

Information Telephone Number: 1-865-524-4239
Fax Number: 1-865-524-3375
Website: www.corecheminc.com
Contact Person: Regulatory Manager
E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 *(monitored 24 hours/day)*

Section 2: Hazards Identification

GHS Hazard Classification(s)
In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)
Flammable, Liquids - 3

Health Hazard(s)
Acute Toxicity, Dermal - 4
Acute Toxicity, Inhalation - 4
Aspiration Hazard - 1
Corrosion/Irritation, Skin - 2
(Corrosion)Damage/Irritation, Eye - 2A
Carcinogenicity - 2
Toxic to Reproduction - 2
Specific Target Organ Toxicity (STOT)-Respiratory Irritation, Single exposure - 3
Specific Target Organ Toxicity (STOT), Repeated exposure - 2

Environmental Hazard(s)
Aquatic, Acute - 2

Label Elements
Signal Word
DANGER

Hazard Symbol(s)



Hazard Statement(s)

H226: 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.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs.
H401: Toxic to aquatic life.

Precautionary Statements

General

Not applicable.

Prevention

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/hot surfaces. No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
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.
P281: Use personal protective equipment as required.

Response

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P314: Get medical advice/attention if you feel unwell.
P321: Specific treatment (see supplemental first aid instructions on this label).
P322: Specific measures (see supplemental first aid instructions on this label).
P331: Do NOT induce vomiting.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse.
P363: Wash contaminated clothing before reuse.
P370 + P378: In case of fire: Use suitable extinguishing media for extinction.

Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P403 + P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Section 3: Composition/Information on Ingredients

Mixture

Chemical Identity [2]	Common Name/Synonym(s)	CAS # [3]	Weight %	Impurity or Stabilizing Additive
M-Xylene	-	108-38-3	30 - 60%	No
P-Xylene	-	106-42-3	10 - 30%	No
Ethyl Benzene	-	100-41-4	10 - 30%	No
O-Xylene	-	95-47-6	10 - 30%	No
Toluene	-	108-88-3	0 - 0.5%	No

1. Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
2. Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
3. "— "Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell. If breathing stops: immediately apply artificial respiration, if necessary, also oxygen.

Skin Contact

Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately! Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion

Caution in victim vomits. Risk of aspiration. Keep airways free. Pulmonary failure possible after aspiration of vomit. Do not induce vomiting. Call a physician immediately.

Most important symptoms/effects, acute and delayed

Symptoms

Irritation, Cough, Dyspnoea, Headache, Dizziness, Vertigo, Unconsciousness, Nausea, Vomiting, Aspiration hazard.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Treat symptomatically. Symptoms may be delayed.

Section 5: Fire-Fighting Measures

General Fire Hazards

In case of fire and/or explosion do not breathe fumes. Use water spray to keep fire-exposed containers cool. Move containers from fire area if you can do so without risk. Water may be ineffective in fighting the fire. Fight fire from a protected location.

Explosion Hazard:
DIRECT EXPLOSION HAZARD: Gas/vapor explosive with air within explosion limits.
INDIRECT EXPLOSION HAZARD: May be ignited by sparks.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Extinguishing powder, alcohol resistant foam, carbon dioxide, water fog

Unsuitable Extinguishing Media

Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

Specific Hazards Arising from the Chemical

Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Exposure to fire/heat: Keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighborhood close doors and windows.

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate area.

Emergency Procedures: Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing.

Methods and Materials for Containment and Clean-Up

Eliminate all ignition sources if safe to do so. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal. Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Precautions for Safe Handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area.

Conditions for Safe Storage, including any Incompatibilities

Keep away from food, drink and animal feeding stuffs. Do not store in metal containers. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids. Keep container tightly closed. Store in cool, dry place. Store in a well-ventilated place.

KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources, combustible materials. oxidizing agents. (strong) acids. halogens. highly flammable materials.

KEEP SUBSTANCE AWAY FROM: SPECIAL REQUIREMENTS: Closing. correctly labelled. meet the legal requirements. Secure fragile packaging's in solid containers.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Xylenes	TWA	20 ppm	US. ACGIH Threshold Limit Values
Xylenes	TWA	1.5 g/g	US. ACGIH Threshold Limit Values
Xylenes	TWA	100 ppm	US OSHA Table Z-1
Xylenes	TWA	435 mg/m^3	US OSHA Table Z-1
Ethyl Benzene	TWA	20 ppm	US. ACGIH Threshold Limit Values
Ethyl Benzene	TWA	100 ppm	US OSHA Table Z-1
Ethyl Benzene	TWA	435 mg/m3	US OSHA Table Z-1
Toluene	TWA	20 ppm	US. ACGIH Threshold Limit Values
O-Xylene	TWA	20 ppm	US. ACGIH Threshold Limit Values
M-Xylene	TWA	20 ppm	US OSHA Table Z-1
P-Xylene	STEL	20 ppm	US OSHA Table Z-1

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Ensure good ventilation of the workstation. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/Face Protection

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin Protection

Hand Protection

Chemical resistant gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

Hygiene Measures

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Section 9: Physical and Chemical Properties

Appearance:

Physical State:	Liquid
Color:	Colorless to light yellow.
Odor:	Sweet, pleasant
Odor Threshold:	No data available.
pH:	Not applicable.
Melting Point/Freezing Point:	-53 °F (-47.22 °C)
Initial Boiling Point and Boiling Range:	278 - 290 °F (136.67 - 143.33 °C)
Flash Point:	79.0 °F (26.1 °C)
Evaporation Rate (butyl acetate=1)**:**	No data available.
Flammability (solid, gas):	No data available.

Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper:	7 % (V)
Flammability Limit – Lower:	1 % (V)
Explosive Limit – Upper:	6.6 %
Explosive Limit – Lower:	1.1 %
Vapor Pressure:	9 mm Hg @ 25 °C
Vapor Density (air =1)**:**	No data available.
Relative Density (water=1)**:**	0.87 (20 °C)
Solubility(ies):	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-Ignition Temperature:	870 °F (465.56 °C)
Decomposition Temperature:	No data available.
Viscosity:	0.59 cP

Other Information:

Molecular Weight:	No data available.
Formula:	No data available.

Section 10: Stability and Reactivity

Reactivity

Flammable liquid and vapor.

Chemical Stability

Material is stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

Incompatible Materials

Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: May be harmful if swallowed.
Inhalation: Harmful if inhaled. Risk of lung edema.
Skin Contact: Harmful in contact with skin. Causes skin irritation.
Eye Contact: Causes serious eye irritation.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

Xylene: LD50 (Rat): 4000 mg/kg body weight – 14d
Xylene: ATE US: 1100 mg/kg body weight
Toluene: LD50 (Rat): 5580 mg/kg body weight – 7d
O-Xylene: LD50 (Rat): 3523 mg/kg body weight – 14 d
M-Xylene: LD50 (Rat): >3523 mg/kg body weight – 14 d
M-Xylene: ATE US: 5011 mg/kg body weight
P-Xylene: LD50 (Rat): 3523 – 4000 mg/kg body weight – 14 d
P-Xylene: ATE US: 3523 mg/kg body weight

Dermal

Xylene: LD50 (Rabbit): 4200 mg/kg body weight – 4h
Ethyl Benzene: LD 50 (Rabbit): 17,800 mg/kg
Ethyl Benzene: ATE US: 15415 mg/kg body weight
Toluene: LD50 (Rabbit): > 5000 mg/kg body weight – 24h

O-Xylene: LD50 (Rabbit): 12126 mg/kg body weight – 24h
M-Xylene: LD50 (Rabbit): 12126 mg/kg body weight – 24h
M-Xylene: ATE US: 1100 mg/kg body weight
P-Xylene: LD50 (Rat): 12126 mg/kg body weight – 24 h
P-Xylene: ATE US: 12126 mg/kg body weight

Inhalation

Xylene: LC50 (Rat): 29.09 mg/l – 4h
Xylene: ATE US: 29.09 mg/l – 4h
Xylene: ATE US: 1.5 mg/l – 4h
Ethyl Benzene: ATE US: 17.8 mg/l body weight – 4h
Ethyl Benzene: ATE US: 4000 ppm body weight – 4h
Toluene: LC50 (Rat): 28.1 mg/l air – 4h
O-Xylene: LC50 (Rat): 27.124 mg/l body weight – 4h
O-Xylene: LC50 (Gases) (Rat): 4500 ppm body weight – 4h
M-Xylene: LC50 (Rat): 27.124 mg/l body weight – 4h
M-Xylene: ATE US: 4500 ppm body weight – 4h
M-Xylene: ATE US (Vapors): 11 mg/l body weight – 4h
P-Xylene: LC50 (Rat): 27.12 mg/l body weight – 4 h
P-Xylene: ATE US: 4500 ppm body weight – 4h
P-Xylene: ATE US: 11 mg/l body weight – 4h
P-Xylene: ATE US: 1.5 mg/l body weight – 4h

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

Causes skin irritation.

Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

Respiratory/Skin Sensitization

Not a skin sensitizer.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Ethyl Benzene: Group 2B, Probably carcinogenic to humans.
Xylenes: Group 3 – Not classifiable.
Toluene: Group 3 – Not classifiable.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

May damage fertility or the unborn child

Specific Target Organ Toxicity – Single Exposure

May cause drowsiness or dizziness. Narcotic effect. Respiratory tract irritation.

Specific Target Organ Toxicity – Repeated Exposure

Central nervous system. Auditory organs. Lungs.

Aspiration Hazard

May be fatal if swallowed and enters airways.

Other Effects

Chronic: Dry skin. Itching.

Potential Adverse Human Health Effects: Abdominal pain. Nausea, vomiting. Swallowing or vomiting of the liquid may result in aspiration into the lungs. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Edema.

[redacted]

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

M-Xylene: LC 50 (Fathead minnow (Pimephales promelas), 96 h): 14.31 - 18.01 mg/l Mortality
M-Xylene: LC 50 (Rainbow trout, donaldson trout (Oncorhynchus mykiss), 96 h): 2.6 mg/l
Xylenes: LC50 (Rainbow trout, donaldson trout (Oncorhynchus mykiss), 96 h): 2.6 mg/l
P-Xylene: LC 50 (Rainbow trout, donaldson trout (Oncorhynchus mykiss), 96 h): 2.6 mg/l
Ethyl Benzene: LC50 (Salmo gairdneri), 96 h: 4.2 mg/l
Toluene: LC50 (Oncorhynchus kisutch), 96 h: 5.5 mg/l
Ethyl Benzene: LC 50 (Bluegill (Lepomis macrochirus), 96 h): 93 - 211 mg/l Mortality
Ethyl Benzene: LC 50 (Carp (Leuciscus idus melanotus), 48 h): 44 mg/l Mortality
O-Xylene: LC 50 (Rainbow trout, donaldson trout (Oncorhynchus Mykiss), 96 h): 2.6 mg/l
O-Xylene: LC 50 (Guppy (Poecilia reticulata), 96 h): 12 mg/l Mortality
O-Xylene: LC 50 (Bluegill (Lepomis macrochirus), 96 h): 11.6 - 22.4 mg/l Mortality
O-Xylene: LC 50 (Fathead minnow (Pimephales promelas), 96 h): 11.6 - 22.4 mg/l Mortality
O-Xylene: LC 50 (Goldfish (Carassius auratus), 96 h): 11.6 - 22.4 mg/l Mortality

Aquatic Invertebrates

M-Xylene: LC 50 (Water flea (Daphnia magna), 48 h): 28.1 - 87.4 mg/l Mortality
M-Xylene: LC 50 (Brine shrimp (Artemia sp.), 48 h): 5.29 - 11.7 mg/l Mortality
P-Xylene: LC 50 (Brine shrimp (Artemia sp.), 24 h): 22.1 - 39.4 mg/l Mortality
P-Xylene: LC 50 (Water flea (Daphnia magna), 48 h): 11.3 - 51.8 mg/l Mortality
Ethyl Benzene: EC 50 (Water flea (Daphnia magna), 48 h): 1.37 - 4.4 mg/l Intoxication
Ethyl Benzene: EC 50 (Brine shrimp (Artemia sp.), 48 h): 3.58 - 9.46 mg/l Intoxication
Ethyl Benzene: LC 50 (Water flea (Daphnia magna), 48 h): 10.6 - 17.2 mg/l Mortality
Ethyl Benzene: LC 50 (Brine shrimp (Artemia sp.), 48 h): 3.91 - 13.7 mg/l Mortality
O-Xylene: EC 50 (Water flea (Daphnia magna), 48 h): 0.78 - 2.51 mg/l Intoxication
O-Xylene: LC 50 (Water flea (Daphnia magna), 48 h): 5.26 - 33.9 mg/l Mortality
O-Xylene: LC 50 (Brine shrimp (Artemia sp.), 48 h): 13.4 - 31.1 mg/l Mortality

Toxicity to Aquatic Plants

Xylenes: LC 50 (Pseudokirchneriella subcapitata,), 73 h: 4.36 mg/l
O-Xylene: LC 50 (Pseudokirchneriella subcapitata), 73 h: 4.3 mg/l
P-Xylene: LC 50 (Pseudokirchneriella subcapitata), 73 h: 4.36 mg/l

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

Ethyl Benzene: Biodegradable in soil and readily biodegradable in water.
Toluene: Readily biodegradable in water
O-Xylene: Biodegradable in soil and readily biodegradable in water.
M-Xylene: Biodegradable in soil and readily biodegradable in water.
P-Xylene: Biodegradable in soil and readily biodegradable in water.

BOD/COD Ratio

Ethyl Benzene:
BOD: 1.44 g O_2/g substance (20d)
COD: 2.1 g O_2/g substance
ThOD: 3.17 g O_2/g substance
Toluene:
BOD: 2.15 g O_2/g substance (20d)
COD: 2.52 g O_2/g substance
ThOD: 3.13 g O_2/g substance

O-Xylene:
BOD: 1.64 g O_2/g substance (20d)
COD: 2.94 g O_2/g substance
ThOD: 3.125 g O_2/g substance
M-Xylene:
BOD: 2.53 g O_2/g substance (20d)
COD: 2.63 g O_2/g substance
ThOD: 3.1 g O_2/g substance
P-Xylene:
BOD: 1.4 g O_2/g substance (20d)
COD: 2.56 g O_2/g substance
ThOD: 3.125 g O_2/g substance

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Xylenes: (Fish) 7.2 – 25.9: 56d (Oncorhynchus mykiss)
Ethyl Benzene: (Fish) 1: 6 weeks (Oncorhynchus kisutch)
Ethyl Benzene: (Fish) 15 – 79
Toluene: (Fish) 90: 72h (Oncorhynchus mykiss)
O-Xylene: (Fish) 7.2 – 25.9: 56d (Oncorhynchus mykiss)
M-Xylene: (Fish) 4.9 – 25.9: 56d (Oncorhynchus mykiss)
P-Xylene: (Fish) <25.9: 56d (Oncorhynchus mykiss)

Partition Coefficient n-octanol / water (log Kow)

Xylenes: Log Pow: 3.2 – Low potential for bioaccumulation.
Ethyl Benzene: Log Pow: 3.15 – Low potential for bioaccumulation
Toluene: Log Pow: 2.73 - Low potential for bioaccumulation
O-Xylene: Log Pow: 3.12 – 3.2 – Low potential for bioaccumulation
M-Xylene: Log Pow: 3.15 – Low potential for bioaccumulation
P-Xylene: Log Pow: 3.15 – Low potential for bioaccumulation

Mobility in Soil

The product is insoluble in water and will spread on the water surface.

Xylenes
Surface tension: 28.01 – 29.76 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc): 2.73
Ecology – soil: Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

Ethyl Benzene (100-41-4)
Surface tension
0.029 N/m
Partition coefficient n-octanol/water (Log Koc): 2.71; Koc; 517.8

Toluene (108-88-3)
Surface tension: 27.73 mN/m (25 °C, 0.05 %)
Ecology – soil: Low potential for adsorption in soil.

O-xylene (95-47-6)
Surface tension: 29.76 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc) 2.73
Ecology – soil: Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

M-xylene (106-42-3)
Surface tension: 28.47 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc): 2.73
Ecology – soil: Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

P-xylene (106-42-3)
Surface tension: 28.01 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc): 2.73
Ecology – soil: Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

Other Adverse Effects

Toxic to aquatic life.
Ecology – Water: Toxic to crustacea (Daphnia). Toxic to fishes. Groundwater pollutant. Fouling to shoreline. No inhibition of activated sludge. Toxic to algae.

Section 13: Disposal Considerations

Disposal Instructions

Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

Contaminated Packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied.

US Department of Transportation (DOT)

UN Number:	UN1307
UN Proper Shipping Name:	Xylenes
Technical Name:	
Hazard Class:	3
Subsidiary Hazard Risk:	-
Packing Group:	III
DOT Label/Placard Exemptions:	Not determined
Special Provisions:	B1, IB3, T2, TP1
Packaging Exceptions:	49CFR 173.150
Packaging Non-Bulk:	49CFR 173.203
Packaging Bulk:	49CFR 173.242
Reportable Quantity (RQ):	100lb (45.4kg)
Marine Pollutant:	No
Poison Inhalation Hazard:	No
Special precautions for user:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Emergency Response Guidebook (ERG) #:	130

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

The following chemical(s) in this material are subject to reporting levels established by CERCLA:

M-Xylene (CAS# 108-38-3)
P-Xylene (CAS# 106-42-3)
Ethyl Benzene (CAS# 100-41-4)
O-Xylene (CAS# 95-47-6)
Toluene (CAS# 108-88-3)

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard:	Yes
Sudden Release of Pressure:	No
Reactive:	No

Acute (Immediate) Health Hazard: Yes

Chronic (Delayed) Health Hazard: Yes

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 313:

M-Xylene (CAS# 108-38-3)
P-Xylene (CAS# 106-42-3)
Ethyl Benzene (CAS# 100-41-4)
O-Xylene (CAS# 95-47-6)

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 2
Chronic Health Hazard: *
Flammability: 3
Physical Hazard: 0
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 2
Fire Hazard: 3
Reactivity Hazard: 0
Special: N/A
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL – Immediately Dangerous to Life and Health
Kg – Kilogram
l – Liter
lb – Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml – milliliter
N/A – Not Applicable
N/D – Not Determined
PEL – Permissible Exposure Limit
REL – Recommended Exposure Limit
STEL – Short-term Exposure Limit
TWA - Time weighted average
ACGIH - American Conference of Industrial Hygienists
AIHA – American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS – Chemical Abstracts Service
DOT – US Department of Transportation
EPA – US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OSHA – US Occupational Health and Safety Administration
SARA – US EPA Superfund Amendments and Reauthorization Act
TSCA – US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

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