

Safety Data Sheet

Xylenes

Section 1 - Chemical Product and Company Identification

SDS Name: Xylenes

Catalog Numbers: C-120

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications Category

H226-Flammable liquids: 3

H303-Acute toxicity, oral: 5

H304-Aspiration hazard: 1

H312-Acute toxicity, dermal: 4

H315-Skin corrosion/irritation: 2

H319-Serious eye damage/eye irritation: 2A

H332-Acute toxicity, inhalation: 4

H335-Specific target organ toxicity, single exposure; Respiratory tract irritation: 3

H351-Carcinogenicity: 2

H373-Specific target organ toxicity, repeated exposure: 2

H401-Hazardous to the aquatic environment, acute hazard: 2

Pictogram or Hazard Symbols and Hazard Statement(s):



Signal Word: Danger

Hazard Statements:

H226-Flammable liquid and vapour

H303-May be harmful if swallowed

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 organs through prolonged or repeated exposure (respiratory system, central nervous system, kidney, liver, blood)
H401-Toxic to aquatic life

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 ignition sources. No smoking.
P233-Keep container tightly closed.
P240-Ground and bond container and receiving equipment.
P241-Use explosion-proof electrical/ventilation/lighting equipment.
P242-Use non-sparking tools.
P243-Take action to prevent static discharges.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash 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.
P301+P310-If swallowed: Immediately call a Poison Center/doctor.
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.
P302+P352-If on skin: Wash with plenty of soap and water.
P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove person to fresh air and keep 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/doctor if you feel unwell.
P314-Get medical advice/attention if you feel unwell.
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+P364-Take off contaminated clothing and wash it before reuse.
P370+P378-In case of fire: Use dry chemical, carbon dioxide, or alcohol-resistant foam to extinguish.
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.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
1330-20-7	Xylenes (o-, m-, p- isomers)	75-85 v/v
100-41-4	Ethyl Benzene	15-25 v/v

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical attention.

Dermal Exposure: In case of contact with skin, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention.

Oral Exposure: Aspiration hazard. If swallowed, seek immediate medical attention. Do NOT induce vomiting. Keep airways free. Aspiration hazard. May be fatal if swallowed and enters airways. If swallowed, vomiting may occur spontaneously (do not induce vomiting). If vomiting occurs, keep head below hips to prevent aspiration into lungs.

Inhalation Exposure: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled material. Give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Seek immediate medical attention.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, or alcohol-resistant foam. For large fires, use fog or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Hazardous Combustion Products: Carbon oxides, aldehydes, hydrocarbons, irritating and toxic fumes and gases.

Flash Point: 29°C (84°F) Closed Cup

Autoignition Temperature: 464°C (867°F)

Flammable Limits, Lower: 1.0 vol %

Upper: 7.0 vol %

NFPA Rating: (estimated) Health: 3; Flammability: 3; Instability: 0

Note: Static discharge could act as an ignition source.

Section 6 – Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Keep away from heat. Eliminate all sources of ignition. Take precautionary measures against static discharge.

Methods for Cleaning up: Absorb with inert material such as sand, earth, or vermiculite. Do NOT absorb with combustible material such as saw dust or cellulosic material. Carefully sweep up and containerize for proper disposal. Use only non-sparking tools. Take precautionary measures against static discharge. Use explosion-proof ventilation equipment. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use only under a chemical fume hood. Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale vapors. Store in a cool, dry, and well-ventilated area. Keep in a tightly closed and non-metal container. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Use proper grounding procedures to avoid static electricity. Keep away from incompatible materials. Protect from heat, hot surfaces, and ignition sources. Vapors heavier than air may travel considerable distance and ignite or explode.

Note: Static discharge could act as an ignition source.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Xylenes (o-, m-, p- isomers) CAS#1330-20-7	100 ppm TWA 150 ppm STEL	Not listed	100 ppm TWA 435 mg/m3 TWA
Ethyl Benzene CAS#100-41-4	20 ppm TWA	100 ppm TWA 435 mg/m3 TWA 125 ppm STEL 545 mg/m3 STEL 800 ppm IDLH	100 ppm TWA 435 mg/m3 TWA

OSHA Vacated PELs: Xylenes (o-, m-, p- isomers): 100 ppm TWA; 435 mg/m3 TWA; 150 ppm STEL, 655 mg/m3 STEL

Ethyl Benzene: 100 ppm TWA, 435 mg/m3 TWA, 125 ppm STEL, 545 mg/m3 STEL

Section 9 - Physical and Chemical Properties
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Physical State: Liquid

Appearance: Clear, colorless

Odor: Aromatic

Vapor Pressure: 8 mmHg at 20°C (68°F)

Odor Threshold: Not available

Vapor Density: 3.7 (Air=1.0)

pH: Not available

Relative Density: 0.86 g/mL at 25°C (77°F)

Melting point/freezing point: -25°C (-13°F)

Solubility: Insoluble in water

Boiling Point: 137-140°C (279-284°F)

Flash Point: 29°C (84°F) Closed Cup

Evaporation Rate: 0.7 (Butyl acetate=1.0)

Flammability (solid, gas): Not applicable

Partition coefficient: n-octanol/water: log Pow: 3.12 at 20°C (68°F)

Autoignition Temperature: 464°C (867°F)

Decomposition Temperature: Not available

Viscosity: Not available

Specific Gravity/Density: 0.865 (H₂O=1)

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to avoid: Incompatible materials, ignition sources, and excess heat.

Incompatibilities with other materials: Strong oxidizing agents and strong acids.

Hazardous Decomposition Products: Carbon oxides, aldehydes, hydrocarbons, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#1330-20-7 Xylenes (o-, m-, p- isomers):

LD50 Oral: 3500 mg/kg (rat)

LD50 Dermal: >4350 mg/kg (rabbit)

LC50 Inhalation: 29.08 mg/L vapor

Investigated as a tumorigen, mutagen, reproductive effecter.

Carcinogenicity: Xylenes (o-, m-, p- isomers) CAS#1330-20-7 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#100-41-4 Ethyl Benzene:

LD50 Oral: 3500 mg/kg (rat)

LD50 Dermal: 15400 mg/kg (rabbit)

LC50 Inhalation: 17.2 mg/L 4h vapor (rat)

Investigated as a tumorigen, mutagen, reproductive effecter.

Carcinogenicity: Ethyl Benzene CAS#100-41-4 is listed by IARC (Group 2B, Possibly Carcinogenic to Humans), ACGIH (A3, Animal Carcinogen), and California Prop. 65 as a carcinogen. Ethyl Benzene is not listed by NTP or OSHA.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

Epidemiology: Not available.

Teratogenicity: Teratogenic effects have occurred in experimental animals.

Reproductive Effects: Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects: Developmental effects have occurred in experimental animals.

Neurotoxicity: Not available.

Mutagenicity: Not available

Specific Target Organ Toxicity, Single Exposure: Central nervous system and respiratory system.

Specific Target Organ Toxicity, Repeated Exposure: Kidney, liver, and blood.

Symptoms associated with exposure: Headache, difficulty breathing, ringing in ears, cough, hoarseness, loss of appetite, dizziness, tiredness, nausea, and vomiting. May be harmful or fatal if swallowed and enters airways. Aspiration may cause severe pulmonary injury or death. Ingestion may cause burning sensation in mouth/stomach, nausea, vomiting, salivation. Affects central nervous system. Causes serious eye irritation. Splashes to eye may cause corneal burns and eye damage. Causes irritation to skin and respiratory tract. Harmful if absorbed through the skin. Skin contact may result in loss of natural oils and a characteristic dermatitis. Chronic exposure may cause damage to liver, kidney, and blood.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

CAS#1330-20-7 Xylenes (o-, m-, p- isomers):

LC50, freshwater fish: 30.26-40.75 mg/L 96h static (poecilia reticulata)(guppy)
LC50, freshwater fish: 780 mg/L 96h semi-static (cyprinus carpio)
LC50, freshwater fish: 23.53-29.97 mg/L 96h static (pimephales promelas)(fathead minnow)
LC50, freshwater fish: 7.711-9.591 mg/L 96h static (lepomis macrochirus)(bluegill)
LC50, freshwater fish: 2.60 mg/L 96h static (oncorhynchus mykiss)(rainbow trout)
EC50, algae: 4.36 mg/L 73h static (pseudokirchneriella subcapitata)(green algae)
EC50, water flea: 3.82 mg/L 48h
EC50, microtox: 0.0084 mg/L 24h

CAS#100-41-4 Ethyl Benzene:

LC50, freshwater fish: 9.6 mg/L 96h static (poecilia reticulata)(guppy)
LC50, freshwater fish: 7.55-11 mg/L 96h flow-through (pimephales promelas)(fathead minnow)
LC50, freshwater fish: 32 mg/L 96h static (lepomis macrochirus)(bluegill)
LC50, freshwater fish: 11.0-18.0 mg/L 96h static (oncorhynchus mykiss)(rainbow trout)
EC50, freshwater algae: 3.6 mg/L 96h static (pseudokirchneriella subcapitata)(green algae)
EC50, water flea: 1.8-2.4 mg/L 48h static (daphnia magna)
EC50, microtox: 9.68 mg/L 30min
EC50, microtox: 96 mg/L 24h

Persistence and degradability: Persistence is unlikely based on information available.

Bio-accumulative potential: Not available.

Mobility: Will likely be mobile in the environment due to its volatility.

Note: When released into the soil, this material may evaporate to a moderate extent. When released into water, this material may evaporate to a moderate extent. When released into the air, this material is expected to have a half-life of less than 1 day.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT
UN1307
Proper Shipping Name: Xylenes
Packing Group III
Hazard Class 3 (flammable)

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: May 11, 2012

Revision #1: 1/3/2014 YM

Revision #2: 8-18-20

Revision #3: 7-18-23

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