Xylenes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 5/4/2018 Revision date: 9/23/2022 Supersedes: 3/20/2020 Version: 1.6

SECTION 1: Identification

1.1. Identification

Product form	:	Mixture
Trade name	:	Xylenes
Product Code	:	160220000
Synonyms	:	Xylene, Xylene Mixed Isomers, Mixed Xylenes, Xylene mixture of isomers, Stain Reducer

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Solvent Cleansing product Chemical raw material
Recommended use	:	Industrial Use
Restrictions on use	:	None known

1.3. Supplier

Atlanta Branch Office	Ocoee Branch Office	Spartanburg Branch Office
Whitaker Oil Company	Whitaker Oil Company	Whitaker Oil Company
1557 Marietta Road NW	280 Enterprise Street	405 John Dodd Road
Atlanta, GA 30318	Ocoee, FL 34761	Spartanburg, SC 29303
404-355-8220 (t)	407-656.0088 (t)	864-578-6968 (t)
404-355-2436 (f)	407-877-8335 (f)	864-578-6864 (f)

WEBSITE: www.whitakeroil.com **EMAIL:** SDS@whitakeroil.com

1.4. Emergency telephone number

Emergency number : **CHEMTREC** 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3	H226
Acute toxicity (dermal) Category 4	H312
Acute toxicity (inhalation) Category 4	H332
Skin corrosion/irritation Category 2	H315
Serious eye damage/eye irritation Category 2	H319
Carcinogenicity Category 2	H351
Reproductive toxicity Category 2	H361
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity (repeated exposure) Category 2, (central nervous system, liver, kidney, hearing organs)	H373
Aspiration hazard Category 1	H304
Hazardous to the aquatic environment – Acute Hazard Category 2	H401

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) :
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
H319 - Causes serious eye irritation
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 (hearing organs, central nervous system, Liver, Kidney) through prolonged or repeated exposure
H401 - Toxic to aquatic life

Precautionary statements (GHS US) :
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/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.
P264 - Wash skin 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 or doctor.
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. Call a poison center if you feel unwell.
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.
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 media other than water 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 to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.	GHS US classification
m-Xylene	CAS-No.: 108-38-3	35 – 46	Flam. Liq. 3, H226
p-xylene	CAS-No.: 106-42-3	10 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Aquatic Acute 2, H401
Ethyl Benzene	CAS-No.: 100-41-4	10 – 19	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304
o-xylene	CAS-No.: 95-47-6	5 – 15	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Aquatic Acute 2, H401
Toluene	CAS-No.: 108-88-3	0 – 0.5	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately. Show this safety data sheet to the doctor in attendance.

First-aid measures after 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.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : 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.

First-aid measures after 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.

4.2. Most important symptoms and effects (acute and delayed)

Most important symptoms and effects (Acute and delayed) : Irritation, Cough, Dyspnoea, Headache, Dizziness, Vertigo, Unconsciousness, Nausea, Vomiting, Aspiration hazard

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapor.
Explosion hazard : DIRECT EXPLOSION HAZARD: Gas/vapor explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD: may be ignited by sparks.
Hazardous decomposition products in case of fire : Upon combustion: CO and CO2 are formed.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : 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.
Firefighting instructions : Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Use personal protective equipment as required.

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.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Cover drains. Collect, bind,
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

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

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) acids. halogens. highly flammable materials.

Storage area : Meet the legal requirements. Keep container in a well-ventilated place. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packaging's in solid containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Xylenes	
USA - ACGIH - Occupational Exposure Limits	
Local name	Xylene, mixed isomers (Dimethylbenzene)
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; hematologic eff; ototoxycity (for mixtures containing p-xylene); CNS impair. Notations: OTO (for mixtures containing p-xylene); A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2022
USA - ACGIH - Biological Exposure Indices	
Local name	XYLENES (Technical or commercial grade)
BEI (BLV)	1.5 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Xylenes (o-, m-, p-isomers)
OSHA PEL (TWA) [1]	435 mg/m³
OSHA PEL (TWA) [2]	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Ethyl Benzene (100-41-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethyl benzene
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	URT irr; kidney dam (nephropathy)
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl benzene
OSHA PEL (TWA) [1]	435 mg/m³
OSHA PEL (TWA) [2]	100 ppm

Toluene (108-88-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Toluene
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	Visual impair; female repro;
USA - OSHA - Occupational Exposure Limits	
Local name	Toluene
Remark (OSHA)	(2) See Table Z-2.

o-xylene (95-47-6)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	20 ppm 20 ppm

m-Xylene (108-38-3)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	20 ppm 20 ppm

p-xylene (106-42-3)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	20 ppm

8.2. Appropriate engineering controls

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.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:
GIVE EXCELLENT RESISTANCE: PVA. GIVE GOOD RESISTANCE: viton. tetrafluoroethylene. nitrile rubber. GIVE POOR RESISTANCE: butyl rubber. natural rubber. neoprene (chloroprene rubber). polyethylene

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.
Eye protection:
Wear safety glasses. If splash potential exists, wear full face shield and/or chemical goggles.
Skin and body protection:
Wear suitable protective clothing. Flame retardant protective clothing is recommended.
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.

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Colorless to light yellow
Odor	:	Sweet, pleasant odor.
Odor threshold	:	No data available
pH	:	No data available
Melting point/ Freezing point	:	-53 °F (-47.22 °C)
Initial boiling point/ Boiling point range	:	278 - 290 °F (136.67 - 143.33 °C)
Flash point	:	79.0 °F (26.1 °C)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	9 mm Hg @ 25°C
Vapor density	:	No data available
Relative density	:	0.87 g/cm3
Solubility	:	Insoluble
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	870 °F (465.56 °C)
Decomposition temperature	:	No data available
Viscosity	:	0.59 cP
Explosion limits	:	Lower explosive limit (LEL): 1.1 vol % Upper explosive limit (UEL): 6.6 vol %
Explosive properties	:	Not classified.
Oxidizing properties	:	Not classified.

9.2. Other information

VOC content	:	100 % by weight

Other properties : Gas/vapor heavier than air at 20°C. Clear. Physical properties depending on the composition. Slightly volatile. May generate electrostatic charges.

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong acids. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Harmful if inhaled.

Xylenes	
LD50 oral rat	> 4000 mg/kg body weight (Equivalent or similar to EU Method B.1, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 4200 mg/kg body weight (4 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	29.09 mg/l (Equivalent or similar to EU Method B.2, 4 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (dermal)	1100 mg/kg body weight
ATE US (vapors)	29.09 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Ethyl Benzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat; Other; Experimental value)
LD50 dermal rabbit	15415 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value)
LC50 Inhalation - Rat	17.8 mg/l/4h (Rat; Literature study)
LC50 Inhalation - Rat [ppm]	4000 ppm/4h (Rat; Literature study)
ATE US (oral)	3500 mg/kg body weight

Ethyl Benzene (100-41-4)	
ATE US (dermal)	15415 mg/kg body weight
ATE US (gases)	4000 ppmV/4h
ATE US (vapors)	17.8 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Toluene (108-88-3)	
LD50 oral rat	5580 mg/kg body weight (Equivalent or similar to EU Method B.1, Rat, Male, Experimental value, Oral, 7 day(s))
LD50 dermal rabbit	> 5000 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	28.1 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
ATE US (oral)	5580 mg/kg body weight

o-xylene (95-47-6)	
LD50 oral rat	3523 mg/kg body weight (Equivalent or similar to EU Method B.1, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	12126 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	27.124 mg/l (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Single intratracheal instillation to anaesthetised animals, 14 day(s))
ATE US (oral)	3523 mg/kg body weight
ATE US (dermal)	12126 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

m-Xylene (108-38-3)	
LD50 oral rat	> 3523 mg/kg body weight (Equivalent or similar to EU Method B.1, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	12126 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	27.124 mg/l (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapors), 14 day(s))
ATE US (oral)	5011 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

p-xylene (106-42-3)	
LD50 oral rat	3523 – 4000 mg/kg body weight (Equivalent or similar to EU Method B.1, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	12126 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	27.12 mg/l (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapors), 14 day(s))

p-xylene (106-42-3)	
ATE US (oral)	3523 mg/kg body weight
ATE US (dermal)	12126 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
pH: No data available in the literature

Serious eye damage/irritation : Causes serious eye irritation.
pH: No data available in the literature

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Xylenes	
IARC group	3 - Not classifiable

Ethyl Benzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

Toluene (108-88-3)	
IARC group	3 - Not classifiable

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : May cause respiratory irritation.

Toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Ethyl Benzene (100-41-4)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Toluene (108-88-3)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.

Viscosity : 0.59 cP

Potential Adverse human health effects and symptoms : 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.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : Risk of lung edema.

Chronic symptoms : Dry skin. Itching.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life.

Ecology - air : Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Photolysis in the air. Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Toxic to crustacea (Daphnia). Toxic to fishes. Groundwater pollutant. Fouling to shoreline. No inhibition of activated sludge. Toxic to algae.

Xylenes	
LC50 - Fish [1]	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Read-across, Lethal)
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
Ethyl Benzene (100-41-4)	
LC50 - Fish [2]	4.2 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri; Semi-static system; Fresh water; Experimental value)
Toluene (108-88-3)	
LC50 - Fish [1]	5.5 mg/l (96 h, Oncorhynchus kisutch, Flow-through system, Fresh water, Experimental value, Lethal)
o-xylene (95-47-6)	
LC50 - Fish [1]	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Lethal)
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
m-Xylene (108-38-3)	
LC50 - Fish [1]	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Experimental value, Lethal)
p-xylene (106-42-3)	
LC50 - Fish [1]	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Experimental value, Lethal)
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

Xylenes	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Ethyl Benzene (100-41-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.44 g O_2/g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O_2/g substance
ThOD	3.17 g O_2/g substance
BOD (% of ThOD)	45.4 (20 days)
Toluene (108-88-3)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	2.15 g O_2/g substance

Toluene (108-88-3)	
Chemical oxygen demand (COD)	2.52 g O_2/g substance
ThOD	3.13 g O_2/g substance
BOD (% of ThOD)	0.69

o-xylene (95-47-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.64 g O_2/g substance
Chemical oxygen demand (COD)	2.91 g O_2/g substance
ThOD	3.125 g O_2/g substance

m-Xylene (108-38-3)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	2.53 g O_2/g substance
Chemical oxygen demand (COD)	2.63 g O_2/g substance
ThOD	3.1 g O_2/g substance

p-xylene (106-42-3)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.4 g O_2/g substance
Chemical oxygen demand (COD)	2.56 g O_2/g substance
ThOD	3.125 g O_2/g substance

12.3. Bioaccumulative potential

Xylenes	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Ethyl Benzene (100-41-4)	
BCF - Fish [1]	1 (BCF; Other; 6 weeks; Oncorhynchus kisutch; Flow-through system; Salt water; Literature study)
BCF - Fish [2]	15 – 79 (BCF)
BCF - Other aquatic organisms [1]	4.68 (BCF)
Partition coefficient n-octanol/water (Log Pow)	3.15 (Experimental value; 3.6; Experimental value; EU Method A.8: Partition Coefficient; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Toluene (108-88-3)	
BCF - Fish [1]	90 (72 h, Leuciscus idus, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2.73 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

o-xylene (95-47-6)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.12 – 3.2 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

m-Xylene (108-38-3)	
BCF - Fish [1]	4.9 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.15 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

p-xylene (106-42-3)	
BCF - Fish [1]	< 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.15 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Xylenes	
Surface tension	28.01 – 29.76 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
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)	log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated value

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 (log Koc, Equivalent or similar to OECD 121, Experimental value)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

m-Xylene (108-38-3)	
Surface tension	28.47 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Experimental value)
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 (log Koc, Equivalent or similar to OECD 121, Experimental value)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : 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.

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

14.1. UN number

DOT NA No : UN1307

UN-No. (IMDG) : 1307

UN-No. (IATA) : 1307

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Xylenes

Proper Shipping Name (IMDG) : Xylenes

Proper Shipping Name (IATA) : Xylenes

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3

Hazard labels (DOT) : 3

IMDG

Transport hazard class(es) (IMDG) : 3

Hazard labels (IMDG) : 3

IATA

Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3

14.4. Packing group

Packing group (DOT) : III

Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1307
DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

IMDG

Transport regulations (IMDG) : Subject to the provisions
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS

IATA

Transport regulations (IATA) : Subject to the provisions

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Xylenes	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Acute toxicity (any route of exposure) Health hazard - Aspiration hazard Health hazard - Carcinogenicity Health hazard - Respiratory or skin sensitization Health hazard - Reproductive toxicity Health hazard - Serious eye damage or eye irritation Health hazard - Skin corrosion or Irritation Health hazard - Specific target organ toxicity (single or repeated exposure)

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.		
Ethyl Benzene	CAS-No. 100-41-4	10 – 19%
Toluene	CAS-No. 108-88-3	0 – 0.5%
o-xylene	CAS-No. 95-47-6	5 – 15%
m-Xylene	CAS-No. 108-38-3	35 – 46%
p-xylene	CAS-No. 106-42-3	10 – 20%

Ethyl Benzene (100-41-4)	
Listed on EPA Hazardous Air Pollutant (HAPS)	

Toluene (108-88-3)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

o-xylene (95-47-6)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

m-Xylene (108-38-3)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

p-xylene (106-42-3)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb

15.2. International regulations

CANADA

Xylenes
Listed on the Canadian DSL (Domestic Substances List)

Ethyl Benzene (100-41-4)
Listed on the Canadian DSL (Domestic Substances List)

Toluene (108-88-3)
Listed on the Canadian DSL (Domestic Substances List)

o-xylene (95-47-6)
Listed on the Canadian DSL (Domestic Substances List)

m-Xylene (108-38-3)
Listed on the Canadian DSL (Domestic Substances List)

p-xylene (106-42-3)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Ethyl Benzene (100-41-4)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

Xylenes	
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List«_STATE_OR_LOCAL_REGULATIONS&disp=value&t»

⚠ WARNING: This product can expose you to Ethyl Benzene , which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Ethyl Benzene (100-41-4)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Toluene(108-88-3)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
m-Xylene(108-38-3)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
o-xylene (95-47-6)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
p-xylene (106-42-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

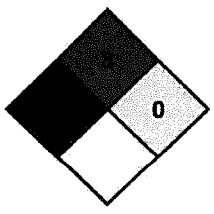
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date : 09/23/2022

Full text of H-phrases	
H225	Highly flammable liquid and vapor
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
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

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