Safety Data Sheet

Xylene

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Xylene

Synonyms/Generic Names: Mixed xylenes (o-, m-, p- isomers)

Product Number: 6010

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Carcinogen, Target organ effect, Harmful by skin absorption, Irritant

Target Organs: Liver, Kidneys, Blood, Eyes, Ears, Heart, Bone marrow, Central nervous system

Signal Word: Danger

Pictograms:

GHS Classification:

Flammable liquids	Category 3
Acute toxicity, Inhalation	Category 4
Skin irritation	Category 2
Eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity-single exposure-Respiratory tract	Category 3
Specific target organ toxicity-repeated exposure-Ears	Category 2
Aspiration hazard	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

GHS Label Elements, including precautionary statements:

Hazard Statements:

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
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.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/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.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P312	Call a POISON CENTER/doctor/physician if you feel unwell.
P332+P337+P313	If skin or eye irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use appropriate media to extinguish.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes eye severe irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Causes skin irritation. Prolonged exposure may cause skin drying.
Ingestion	May be harmful if swallowed.

NFPA Ratings

Health	2
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	3
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Xylenes	60-100	1330-20-7	215-535-7	C_8H_{10}	106.17 g/mol

Ethylbenzene	10-30	100-41-4	202-849-4	C_8H_{10}	106.17 g/mol
Cumene	0.1-1	98-82-8	202-704-5	C_9H_{12}	120.20 g/mol

4. FIRST-AID MEASURES

Eyes	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin	Wash skin thoroughly with soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	**Do not induce vomiting!** Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use appropriate media for adjacent fire. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Neutralize spill. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling
See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

Conditions for safe storage, including any incompatibilities
Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Xylene	100 ppm 434 mg/m^3	TLV	ACGIH
	150 ppm 651 mg/m^3	STEL	ACGIH
	100 ppm 435 mg/m^3	PEL	OSHA
	100 ppm 435 mg/m^3	REL	NIOSH
	150 ppm 655 mg/m^3	STEL	NIOSH
Ethylbenzene	100 ppm 434 mg/m^3	TLV	ACGIH
	125 ppm 543 mg/m^3	STEL	ACGIH
	100 ppm 435 mg/m^3	PEL	OSHA
	100 ppm 435 mg/m^3	REL	NIOSH
	125 ppm 454 mg/m^3	STEL	NIOSH
Cumene	50 ppm	TLV	ACGIH
	50 ppm 245 mg/m^3	PEL	OSHA

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles with face shield if splashing is likely to occur.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations
Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid.
Odor	Sweet, pungent aromatic hydrocarbon odor.
Odor threshold	1 ppm
pH	Not Available
Melting point/freezing point	-48 °C (-54 °F)
Initial boiling point and boiling range	138 °C (280 °F)
Flash point	Closed Cup: 27 °C (81 °F)
Evaporation rate	0.8 (n-Butyl Acetate = 1)
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	Lower: 1% Upper: 7%
Vapor pressure	0.93 kPa (7 mmHg) at 20 °C
Vapor density	3.7 (Air = 1)
Density	0.86-0.87 (Water = 1)
Solubility (ies)	Insoluble in cold water, hot water. Miscible with absolute alcohol, ether, and many other organic liquids.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	432 °C (810 °F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal storage conditions.
Possibility of Hazardous Reactions	Will not occur under normal storage conditions.
Conditions to Avoid	Heat, flames, sparks.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Xylenes

Skin	Not Available
Eyes	Not Available
Respiratory	LC50 Inhalation – Rat – 5000 ppm– 4hr LC50 Inhalation – Rat – 6700 ppm – 4hr
Ingestion	LD50 Oral – Rat – 4300 mg/kg LD50 Oral – Rat – 4300 mg/kg LD50 Oral – Mouse – 2199 mg/kg

Ethylbenzene

Skin	LD50 Dermal – Rabbit - >5000 mg/kg
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – Rat – 3500 mg/kg

Cumene

Skin	LD50 Dermal – Rabbit - 12300 uL/kg
Eyes	Not Available
Respiratory	LC50 Inhalation – mouse – 10 g/m^3 – 7 hr
Ingestion	LD50 Oral – Rat – 2.9 g/kg LD50 Oral – Rat – 4000 mg/kg

Carcinogenicity

IARC	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Xylene). 2B - Group 2B: Possibly carcinogenic to humans (Ethylbenzene). 2B - Group 2B: Possibly carcinogenic to humans (Cumene).
ACGIH	A4: Not classifiable as a human carcinogen (Xylene). A3: Animal carcinogen (Ethylbenzene).
NTP	Reasonably anticipated to be a human carcinogen (Cumene).
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Irritation, redness.
Eyes	Irritation, redness, watering eyes, itchiness.
Respiratory	Headache, weakness, memory loss, irritability, dizziness, giddiness, loss of coordination and judgment, respiratory depression/arrest or difficulty breathing.
Ingestion	Abdominal pain, vomiting, and nausea.

Chronic Toxicity	May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Suspected of causing cancer if inhaled. Risk of cancer depends on duration and level of exposure.
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Xylenes

Aquatic Vertebrate	Acute LC50 - 15700 µg/l Fresh water Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 96 hours Acute LC50 - 19000 µg/l Fresh water Fish - Lepomis macrochirus - 96 hours Acute LC50 - 13400 µg/l Fresh water Fish - Pimephales promelas - 96 hours Acute LC50 - 16940 µg/l Fresh water Fish - Carassius auratus – 96 hours
Aquatic Invertebrate	Acute EC50 - 90 mg/l Fresh water Crustaceans - Cypris subglobosa - 48 hours Acute LC50 - 8.5 ppm Marine water Crustaceans – Palaemonetes pugio – Adult - 48 hours Acute LC50 - 8500 µg/l Marine water Crustaceans – Palaemonetes pugio - 48 hours
Terrestrial/Algae	Not Available

Ethylbenzene

Aquatic Vertebrate	Acute LC50 - 4200 µg/l Fresh water Fish - Oncorhynchus mykiss - 96 hours
Aquatic Invertebrate	Acute EC50 - 2930 µg/l Fresh water Daphnia - Daphnia magna – Neonate - 48 hours

	Acute LC50 - 5200 µg/l Marine water Crustaceans – Americamysis bahia - 48 hours
Terrestrial/Algae	Acute EC50 - 4600 µg/l Fresh water Algae – Pseudokirchneriella subcapitata - 72 hours Acute EC50 - 3600 µg/l Fresh water Algae – Pseudokirchneriella subcapitata - 96 hours Chronic NOEC - 1000 µg/l Fresh water Algae – Pseudokirchneriella subcapitata - 96 hours

Cumene

Aquatic Vertebrate	Acute LC50 - 2700 µg/l Fresh water Fish - Oncorhynchus mykiss - 96 hours
Aquatic Invertebrate	Acute EC50 - 7400 µg/l Fresh water Crustaceans - Artemia sp. – Nauplii - 48 hours Acute EC50 - 10600 µg/l Fresh water Daphnia - Daphnia magna – Neonate - 48 hours
Terrestrial/Algae	Acute EC50 - 2600 µg/l Fresh water Algae – Pseudokirchneriella Subcapitata - 72 hours

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Product or Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1307, Xylenes, 3, pg III
TDG	UN1307, XYLENES, 3, PG III
IMDG	UN1307, XYLENES, 3, PG III
Marine Pollutant	No
IATA/ICAO	UN1307, Xylenes, 3, pg III

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Listed: Ethylbenzene, Cumene
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313	Listed: Xylene, Ethylbenzene
WHMIS Canada	Class B-2: Flammable and combustible liquid- Flammable liquid Class D-2A: Poisonous and infectious material- Other effects- Very toxic Class D-2B: Poisonous and infectious material- Other effects- Toxic

16. OTHER INFORMATION

Revision	Date
Original	10/24/2017
Revised	01/28/2020