Safety Data Sheet · OSHA HCS 2024

Xylene ACS Grade

ACS Grade

Standard	Revised	Emergency
OSHA HCS 2024 · GHS Rev. 7	2026-11-12	Chemtel 1-800-255-3924 (24/7)

1 Identification

Product Identifier	Xylene ACS Grade
Grade	ACS Grade
CAS Number	1330-20-7
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Synonyms	Xylol; dimethylbenzene; mixed xylenes
Recommended Use	Laboratory and analytical reagent (ACS grade); solvent for paints, coatings, adhesives, inks and resins; cleaning and degreasing; clearing agent in histology.
Restrictions on Use	For industrial and professional use. Not for use in food, drug or cosmetic products.

2 Hazard Identification



Flammable



Irritant / harmful



Health hazard

Classification

Flammable liquids, Category 3

Aspiration hazard, Category 1

Acute toxicity (dermal), Category 4

Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 2A

Acute toxicity (inhalation), Category 4

Specific target organ toxicity, single exposure, Category 3 (respiratory tract irritation)

Carcinogenicity, Category 2

Specific target organ toxicity, repeated exposure, Category 2

Signal Word

Danger

Hazard Statements

- 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
- H373 May cause damage to organs through prolonged or repeated exposure

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, ventilating, and lighting equipment.
- P242 Use non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe dust, fume, gas, mist, vapors or spray.
- P261 Avoid breathing dust, fume, gas, mist, vapors or spray.
- P264 Wash hands and face thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves, protective clothing, and eye/face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
- P302+P352 IF ON SKIN: Wash with plenty of water and soap.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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 or attention.
- P312 Call a POISON CENTER or doctor if you feel unwell.
- P314 Get medical advice or attention if you feel unwell.
- P321 Specific treatment (see first-aid information on this label).
- P331 Do NOT induce vomiting.
- P332+P313 If skin irritation occurs: Get medical advice or attention.
- P337+P313 If eye irritation persists: Get medical advice or attention.
- P362 Take off contaminated clothing and wash before reuse.
- P370+P378 In case of fire: Use alcohol-resistant foam, CO2 or dry chemical powder 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 and container in accordance with local, regional, national, and international regulations.

Classification, hazard (H) and precautionary (P) statements and pictograms per OSHA HCS 2024 (29 CFR 1910.1200, Appendices A–C), aligned with GHS Rev. 7.

3 Composition / Information on Ingredients

Component	CAS No.	Formula	Concentration
Xylene (mixed isomers)	1330-20-7	C_8H_{10}	>=80% (w/w)
Ethylbenzene	100-41-4	C_8H_{10}	<=20% (w/w)
Cumene	98-82-8	C_9H_{12}	<0.5% (w/w)

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

4 First-Aid Measures

Eyes

Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.

Skin

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.

Inhalation

Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Ingestion

Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

Most Important Symptoms and Effects

Aspiration into the lungs, for example during vomiting, may cause chemical pneumonitis, which can be fatal.

Eye contact causes irritation: redness, pain and tearing.

Skin contact causes irritation: redness, itching and pain; repeated contact may dry and crack the skin.

Inhalation may irritate the nose, throat and respiratory tract (coughing, sore throat).

Absorption through the skin may cause systemic poisoning.

Inhalation may cause coughing, shortness of breath and headache; high concentrations may cause systemic poisoning.

Immediate Medical Attention and Special Treatment

Aspiration hazard: if swallowed, do not induce vomiting and get medical attention immediately. Note to physician: observe for chemical pneumonitis; protect the airway before any gastric procedure.

5 Fire-Fighting Measures

Suitable Extinguishing Media

Alcohol-resistant foam, CO2, dry chemical powder. Water spray may be used to cool fire-exposed containers.

Unsuitable Extinguishing Media

Do not use a solid water stream — may scatter and spread fire.

Specific Hazards Arising from the Chemical

Vapors are heavier than air and may form explosive mixtures with air; they can travel to a source of ignition and flash back. Containers may rupture when heated.

Protective Equipment

Wear self-contained breathing apparatus and full protective clothing.

Hazardous Combustion Products	Carbon monoxide and carbon dioxide; hydrocarbons and aldehydes on incomplete combustion.

6 Accidental Release Measures

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Hazard-Specific Precautions	Eliminate all ignition sources. Use non-sparking tools and explosion-proof equipment; ground and bond containers during cleanup.
Environmental Precautions	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

7 Handling and Storage

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area away from heat, sparks, and open flame. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. Ground and bond containers when transferring material.
Specific Storage Precautions	Store in a segregated, approved flammables area in tightly closed original containers, cool, dry, well-ventilated and out of direct sunlight, preferably sprinkler-protected. Keep away from oxidizing materials and strong acids. Store locked up. Ground and bond containers when transferring.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
OSHA PEL	100 ppm TWA (CAS 1330-20-7); 100 ppm TWA (CAS 100-41-4)
ACGIH TLV	100 ppm TWA / 150 ppm STEL (CAS 1330-20-7); 20 ppm TWA (CAS 100-41-4)
NIOSH REL	100 ppm TWA / 150 ppm STEL
IDLH	900 ppm

Engineering Controls	Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.
Eye/Face Protection	Wear chemical safety goggles or face shield.
Skin Protection	Wear chemical-resistant gloves and protective clothing.
Respiratory Protection	Use a NIOSH-approved respirator with organic vapor cartridges. For confined spaces or exposures above the OEL, use supplied-air respiratory protection.

Exposure limits sourced from NIOSH Pocket Guide, OSHA 29 CFR 1910.1000 and ACGIH TLVs.

9 Physical & Chemical Properties

Appearance	Clear, pale liquid with transparent visual profile
Odor	Sweet, pungent aromatic odor
Odor Threshold	0.05 ppm
pH	No data available
Melting Point / Freezing Point	-47°C (-52.6°F)
Boiling Point	137–140 °C (279–284 °F)
Flash Point	25–27 °C (77–81 °F), closed cup
Evaporation Rate	0.8 (n-butyl acetate = 1)
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	LEL 0.9–1.1% / UEL 6.7–7% (v/v in air)
Vapor Pressure	7–8 mmHg (0.9–1.1 kPa) at 20 °C
Vapor Density	3.7 (air = 1)
Relative Density	0.86–0.87 at 20–25 °C (water = 1)
Solubility	Very slightly soluble in water; miscible with most organic solvents
Partition Coefficient (n-octanol/water)	log Kow 3.15
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Particle Characteristics	Not applicable
Form	Liquid
Density	0.860 - 0.875 g/cm^3 at 25 °C
Refractive Index	1.4940 - 1.5000

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

10 Stability and Reactivity

Reactivity	Not reactive under normal conditions of use and storage.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat, sparks, open flame and other ignition sources; vapor accumulation in low or confined areas; contact with incompatible materials.
Incompatible Materials	Strong oxidizing agents (including nitric acid); strong acids, including acetic acid; halogens.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide; hydrocarbons and aldehydes on incomplete combustion.

11 Toxicological Information

See below for route-specific acute toxicity data.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.

Symptoms	Aspiration into the lungs, for example during vomiting, may cause chemical pneumonitis, which can be fatal. Eye contact causes irritation: redness, pain and tearing. Skin contact causes irritation: redness, itching and pain; repeated contact may dry and crack the skin. Inhalation may irritate the nose, throat and respiratory tract (coughing, sore throat). Absorption through the skin may cause systemic poisoning. Inhalation may cause coughing, shortness of breath and headache; high concentrations may cause systemic poisoning.
Delayed and Chronic Effects	Carcinogenicity: may cause or is suspected of causing cancer after long-term exposure (see the carcinogen classification below). Prolonged or repeated exposure may damage organs. Repeated skin contact may cause dermatitis (dry, cracked skin).

Route	Value
LD50 Oral (rat)	3523–4300 mg/kg (CAS 1330-20-7)
LD50 Dermal (rabbit)	> 1700 mg/kg (CAS 1330-20-7)
LC50 Inhalation (rat, 4h)	5000 ppm (CAS 1330-20-7)

Carcinogen Classification

Agency	Status
IARC	Group 2B — possibly carcinogenic to humans (Ethylbenzene; IARC agent: Ethylbenzene, Vol. 77).
NTP	Reasonably anticipated to be a human carcinogen (Cumene; NTP listing: Cumene).
OSHA	No substance-specific standard in 29 CFR 1910 Subpart Z; classified as a carcinogen under the Hazard Communication Standard (29 CFR 1910.1200). See Section 2.

12 Ecological Information

Ecotoxicity	Algae ErC50: 4.7 mg/L (72 h, Pseudokirchneriella subcapitata — o-xylene as representative isomer (mixed-xylene CAS has no own record); 4.7 mg/L)
Persistence & Degradability	Low under aerobic conditions — Readily biodegradable (90–94% O_2 in 28 d) [o-xylene]
Bioaccumulative Potential	BCF 14 (measured in goldfish; low) [o-xylene]
Mobility in Soil	Koc 24–251 — very high to moderate mobility [o-xylene]

13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

EPA RCRA Waste Codes	U239 (discarded unused product, 40 CFR 261.33(f)); F003 (spent solvent, 40 CFR 261.31)

If discarded, this material may be an ignitable hazardous waste (EPA RCRA D001, 40 CFR 261.21(a)(1): flash point below 60 °C; aqueous solutions with less than 24% alcohol by volume are excluded). The waste generator must make the final hazardous-waste determination.

14 Transport Information

US DOT (49 CFR)

UN Number	UN1307
Proper Shipping Name	Xylenes
Hazard Class	3
Packing Group	III
Additional US DOT Requirements	A package containing 100 lb or more of xylene (about 125 lb or 17 gal of this product, for example a 55-gal drum) is a hazardous substance: UN1307, Xylenes, 3, III, RQ (Xylenes). Not a marine pollutant.

IMDG / IATA classifications may differ from US DOT. Verify current regulations before international shipment.

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Contains Ethylbenzene (CAS 100-41-4) at <=20%; listed; Contains Cumene (CAS 98-82-8) at <0.5%; listed.
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Listed
CERCLA Reportable Quantity (RQ)	Xylene, mixed isomers (CAS 1330-20-7) 100 lb (45.4 kg); ethylbenzene (CAS 100-41-4) 1,000 lb; cumene (CAS 98-82-8) 5,000 lb.

SARA 311/312 hazard categories correspond to the GHS classification in Section 2. Data retrieved as of: California Proposition 65 2026-11-02; US EPA TSCA Active Inventory 2026-11-02; EPCRA SARA 313 (TRI) 2026-11-02.

16 Other Information

Revision Date	2026-11-12
Format	16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7.

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