Xylenes, ACS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 11/15/2013 Revision date: 03/23/2015 Supersedes: 11/15/2013 Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Substance
Substance name	:	Xylenes, ACS
CAS No	:	1330-20-7
Product code	:	LC26970
Formula	:	C8H10
Synonyms	:	benzene, dimethyl- / dimethylbenzene, mixture of isomers / dimethylbenzol, mixture of isomers / methyltoluene, mixture of isomers / mixed xylenes / xylol
Other means of identification	:	Xylenes, mixture of ortho, meta and para isomers with ethylbenzene

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	:	Solvent Cleaning product Chemical raw material

1.3. Details of the supplier of the safety data sheet

LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 3 H226
Skin Irrit. 2 H315
Aquatic Acute 2 H401

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS02 GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) :
H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H401 - Toxic to aquatic life

Precautionary statements (GHS-US) :
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P264 - Wash exposed skin thoroughly after handling
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P332+P313 - If skin irritation occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use carbon dioxide (CO2), powder, alcohol-resistant foam to

extinguish
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards

Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type : Multi-constituent

Name	Product identifier	%	Classification (GHS-US)
Xylenes, ACS (Main constituent)	(CAS No) 1330-20-7	100	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Aquatic Acute 2, H401

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth with water. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Central nervous system depression. Dizziness. Headache. Coordination disorders. Disturbed motor response. Impaired memory. Disturbances of consciousness.

Symptoms/injuries after skin contact : Tingling/irritation of the skin.

Symptoms/injuries after eye contact : Irritation of the eye tissue.

Symptoms/injuries after ingestion : AFTER ABSORPTION OF LARGE QUANTITIES: Enlargement/disease of the liver. Symptoms similar to those listed under inhalation.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Dry skin. Itching.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. Alcohol-resistant foam. BC powder. Carbon dioxide.

Unsuitable extinguishing media : Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD. Flammable. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May build up electrostatic charges: risk of ignition. May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard	:	DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".
Reactivity	:	Upon combustion: CO and CO2 are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) acids.

5.3. Advice for firefighters

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 neighbourhood close doors and windows.
Firefighting instructions	:	Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting	:	Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	:	Gloves. Face-shield. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.
Emergency procedures	:	Mark the danger area. Stop engines and no smoking. No naked flames or sparks. Spark- and explosion-proof appliances and lighting equipment. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

Protective equipment	:	Equip cleanup crew with proper protection. Do not breathe gas, fumes, vapor or spray.
Emergency procedures	:	If a major spill occurs, all personnel should be immediately evacuated and the area ventilated. Stop release. Ventilate area.

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment	:	Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills. Heating: dilute combustible gas/vapour with water curtain.
Methods for cleaning up	:	Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite or powdered limestone. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Spill must not return in its original container. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
Hygiene measures	:	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible products	:	Strong oxidizers.
Heat-ignition	:	KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Prohibitions on mixed storage	:	KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. strong acids. halogens. highly flammable materials.
Storage area	:	Store in a cool area. Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.

Special rules on packaging	:	SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	:	SUITABLE MATERIAL: No data available. MATERIAL TO AVOID: No data available.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Xylenes, ACS (1330-20-7)		
ACGIH	ACGIH TWA (ppm)	100 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	435 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

8.2. Exposure controls

Appropriate engineering controls	:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.
Materials for protective clothing	:	GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: PVA. viton. tetrafluoroethylene. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: butyl rubber. natural rubber. neoprene. polyethylene. nitrile rubber.
Hand protection	:	Gloves.
Eye protection	:	Face shield.
Skin and body protection	:	Protective clothing.
Respiratory protection	:	Wear gas mask with filter type A if conc. in air > exposure limit.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Molecular mass	:	106.17 g/mol
Color	:	Colourless to light yellow
Odor	:	Pleasant odour;Aromatic odour
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	9.2 - 13.5
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	135 - 145 °C
Flash point	:	25 °C
Critical temperature	:	346 - 359 °C
Auto-ignition temperature	:	464 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	6.7 - 8.7 hPa
Vapor pressure at 50 °C	:	32 - 43 hPa
Critical pressure	:	35160 - 37100 hPa
Relative vapor density at 20 °C	:	3.7
Relative density	:	0.86 - 0.88
Relative density of saturated gas/air mixture	:	1.02
Specific gravity / density	:	861 - 880 kg/m³
Solubility	:	Insoluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in petroleum spirit. Water: < 0.02 g/100ml Ethanol: Complete Ether: Complete

Log Pow	:	3.2 (Conclusion by analogy; 20 °C)
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Explosive limits	:	1.0 - 7.0 vol % 44 - 310 g/m³

9.2. Other information

Minimum ignition energy	:	0.2 mJ
Specific conductivity	:	0.1 pS/m
Saturation concentration	:	(20°C) 29/37
VOC content	:	100 %
Other properties	:	Gas/vapour 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

Upon combustion: CO and CO2 are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) acids.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

High temperature. Incompatible materials. Open flame. Sparks.

10.5. Incompatible materials

Strong oxidizers. Strong acids.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Xylenes, ACS (\f)1330-20-7	
LD50 oral rat	3523 - 8600 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 3523 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; >4000 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 4200 mg/kg body weight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	29 mg/l/4h (Rat; Experimental value; 27.57 mg/l/4h; Rat; Experimental value)
ATE US (oral)	3523.000 mg/kg body weight
ATE US (vapors)	29.000 mg/l/4h
ATE US (dust, mist)	29.000 mg/l/4h

Skin corrosion/irritation	:	Causes skin irritation.
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified

Xylenes, ACS (1330-20-7)	
IARC group	3 - Not classifiable

Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified

Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
Symptoms/injuries after inhalation	:	EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Central nervous system depression. Dizziness. Headache. Coordination disorders. Disturbed motor response. Impaired memory. Disturbances of consciousness.
Symptoms/injuries after skin contact	:	Tingling/irritation of the skin.
Symptoms/injuries after eye contact	:	Irritation of the eye tissue.
Symptoms/injuries after ingestion	:	AFTER ABSORPTION OF LARGE QUANTITIES: Enlargement/disease of the liver. Symptoms similar to those listed under inhalation.
Chronic symptoms	:	ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Dry skin. Itching.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008. Not classified as dangerous for the environment according to the criteria of Directive 67/548/EEC.
Ecology - air	:	Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.5/I.
Ecology - water	:	Fouling to shoreline. Ground water pollutant. Toxic to fishes. Toxic to invertebrates (Daphnia). Toxic to algae. Not harmful to activated sludge.

Xylenes, ACS (1330-20-7)	
LC50 fish 1	13.5 mg/l (96 h; Lepomis macrochirus; Lethal)
EC50 Daphnia 1	150 mg/l (24 h; Daphnia magna)
LC50 fish 2	3.77 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	7.4 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	72 mg/l (336 h; Selenastrum capricornutum; Growth)
Threshold limit algae 2	10 mg/l (72 h; Skeletonema costatum)

12.2. Persistence and degradability

Xylenes, ACS (1330-20-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No test data on mobility of the substance available. Photolysis in the air.

12.3. Bioaccumulative potential

Xylenes, ACS (1330-20-7)	
BCF fish 1	15 8 weeks; Salmo gairdneri (Oncorhynchus mykiss)
BCF fish 2	7 - 26 (8 weeks; Oncorhynchus mykiss)
Log Pow	3.2 (Conclusion by analogy; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Xylenes, ACS (1330-20-7)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

Effect on ozone layer :

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : 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. Recycle by distillation. Incinerate under surveillance with energy recovery. Do not discharge into surface water.

Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1307 Xylenes, 3, III

UN-No.(DOT) : UN1307

Proper Shipping Name (DOT) : Xylenes

Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid

Packing group (DOT) : III - Minor Danger

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.

Additional information

Other information : No supplementary information available.

ADR

Transport document description : UN 1307, 3, III, (D/E)

Packing group (ADR) : III

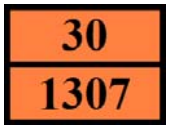
Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 30

Classification code (ADR) : F1

Hazard labels (ADR) : 3 - Flammable liquids

Orange plates :



Tunnel restriction code : D/E

Transport by sea

UN-No. (IMDG) : 1307
Class (IMDG) : 3 - Flammable liquids
EmS-No. (1) : F-E
EmS-No. (2) : S-D

Air transport

UN-No.(IATA) : 1307
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Xylenes, ACS (1330-20-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb
SARA Section 311/312 Hazard Classes	Fire hazard

15.2. International regulations

CANADA

Xylenes, ACS (1330-20-7)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 3 H226
Acute Tox. 4 (Inhalation) H332
Acute Tox. 4 (Dermal) H312
Skin Irrit. 2 H315
Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

R10
Xn; R20/21
Xi; R38

Full text of R-phrases: see section 16

15.2.2. National regulations

15.3. US State regulations

No additional information available

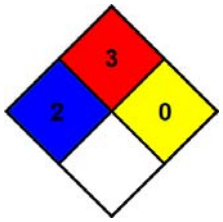
SECTION 16: Other information

Revision date : 03/23/2015

Full text of H-phrases: see section 16:

Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
H226	Flammable liquid and vapor
H315	Causes skin irritation
H401	Toxic to aquatic life

NFPA health hazard	:	2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	:	3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity	:	0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health	:	2 Moderate Hazard - Temporary or minor injury may occur
Flammability	:	3 Serious Hazard
Physical	:	0 Minimal Hazard
Personal Protection	:	H

SDS US (GHS HazCom 2012)

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