Xylenes

16446-2.5L

Version 2.1 Revision Date 06.05.2021 Supersedes 1

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

1.1. Product identifier

Product name	:	Xylenes
SDS-number	:	000000020588
Type of product	:	Substance
Remarks	:	SDS according to Art. 31 of Regulation (EC) 1907/2006.
Chemical name	:	Xylene (mixture of isomers)
Index-No.	:	601-022-00-9
REACH Registration Number	:	no data available

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

Use of the Substance/Mixture	:	Laboratory chemicals
Uses advised against	:	none

1.3. Details of the supplier of the safety data sheet

Company	:	Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	:		
For further information, please contact:	:	SafetyDataSheet@Honeywell.com	

1.4. Emergency telephone number

Emergency telephone number	:	+1-703-527-3887 (ChemTrec-Transport) +1-303-389-1414 (Medical)
Country based Poison Control Center	:	see chapter 15.1

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Flammable liquids Category 3
H226 Flammable liquid and vapour.
Acute toxicity Category 4 - Inhalation
H332 Harmful if inhaled.
Acute toxicity Category 4 - Dermal
H312 Harmful in contact with skin.
Skin irritation Category 2
H315 Causes skin irritation.
Eye irritation Category 2
H319 Causes serious eye irritation.
Specific target organ toxicity - single exposure Category 3 - Respiratory system
H335 May cause respiratory irritation.
Specific target organ toxicity - repeated exposure Category 2 - Kidney Liver Central nervous system hearing organs
H373 May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard Category 1
H304 May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard Category 3
H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms :

Signal word : Danger

Hazard statements :

H226	Flammable liquid and vapour.
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.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements	:	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
		P284	Wear respiratory protection.
		P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P302 + P352	IF ON SKIN: Wash with plenty of water.
		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.

2.3. Other hazards

Vapours may form explosive mixtures with air.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Xylene (mixture of isomers)	1330-20-7 601-022-00-9 215-535-7	Flam. Liq. 3; H226 Acute Tox. 4; H332; Inhalation Acute Tox. 4; H312; Dermal Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335; Inhalation STOT RE 2; H373; Kidney Liver Central nervous system Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 75 % - < 100 %	
ethylbenzene (Impurity)	100-41-4 601-023-00-4	Flam. Liq. 2; H225 Acute Tox. 4; H332; Inhalation	> 5 % - < 25 %	

	202-849-4	STOT RE 2; H373; hearing organs Asp. Tox. 1; H304 Aquatic Chronic 3; H412		

3.2. Mixture
Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:
First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:
If breathed in, move person into fresh air. Call a physician immediately.

Skin contact:
Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.

Eye contact:
Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Remove contact lenses. Call a physician immediately.

Ingestion:
When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

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

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray
Foam
Carbon dioxide (CO2)
Dry powder

Extinguishing media which shall not be used for safety reasons:
High volume water jet

5.2. Special hazards arising from the substance or mixture

Fire may cause evolution of:
carbon oxides (CO, CO2).

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.
In the event of fire and/or explosion do not breathe fumes.
Use water spray to cool unopened containers.Do not use a solid water stream as it may scatter and spread fire.Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Ensure adequate ventilation. Remove all sources of ignition.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapour or mist. Exhaust ventilation at the object is necessary.

Advice on protection against fire and explosion:
The product is easily combustible. Vapours may form explosive mixtures with air. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

Hygiene measures:
Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Recommended preventive skin protection Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

Temperature class:
T1

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:
Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
Xylene (mixture of isomers)	EH40 WEL TWA	220 mg/m3 50 ppm		
Xylene (mixture of isomers)	EH40 WEL SKIN_DES			Can be absorbed through the skin.
Xylene (mixture of isomers)	EH40 WEL STEL	441 mg/m3 100 ppm		
Xylene (mixture of isomers)	EH40 WEL			Listed
Xylene (mixture of isomers)	EU ELV SKIN_DES			Can be absorbed through the skin.
Xylene (mixture of isomers)	EU ELV STEL	442 mg/m3 100 ppm		Indicative
Xylene (mixture of isomers)	EU ELV TWA	221 mg/m3 50 ppm		Indicative
ethylbenzene	EH40 WEL TWA	441 mg/m3 100 ppm		
ethylbenzene	EH40 WEL SKIN_DES			Can be absorbed through the skin.
ethylbenzene	EH40 WEL STEL	552 mg/m3 125 ppm		
ethylbenzene	EU ELV TWA	442 mg/m3 100 ppm		Indicative
ethylbenzene	EU ELV STEL	884 mg/m3 200 ppm		Indicative
ethylbenzene	EU ELV SKIN_DES			Can be absorbed through the skin.
ethylbenzene	EH40 WEL STEL	552 mg/m3 125 ppm	15 minutes	

TWA - Time weighted average
SKIN_DES - Skin designation:
STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
Xylene (mixture of isomers)	Workers / Long-term systemic effects		77 mg/m3	Inhalation	
Xylene (mixture of isomers)	Workers / Acute systemic effects		289 mg/m3	Inhalation	
Xylene (mixture of isomers)	Workers / Acute local effects		289 mg/m3	Inhalation	
Xylene (mixture of isomers)	Workers / Long-term systemic effects		180mg/kg bw/d	Skin contact	
Xylene (mixture of isomers)	Consumers / Long-term systemic effects		14,8 mg/m3	Inhalation	
Xylene (mixture of isomers)	Consumers / Acute systemic effects		174 mg/m3	Inhalation	
Xylene (mixture of isomers)	Consumers / Acute local effects		174 mg/m3	Inhalation	
Xylene (mixture of isomers)	Consumers / Long-term systemic effects		108mg/kg bw/d	Skin contact	
Xylene (mixture of isomers)	Consumers / Long-term systemic effects		1,6mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
Xylene (mixture of isomers)	Fresh water: 0,327 mg/l	

Xylene (mixture of isomers)	Marine water: 0,327 mg/l	
Xylene (mixture of isomers)	Sewage treatment plant: 6,58 mg/l	
Xylene (mixture of isomers)	Fresh water sediment: 12,46 mg/kg dw	
Xylene (mixture of isomers)	Marine sediment: 12,46 mg/kg dw	
Xylene (mixture of isomers)	Soil: 2,31 mg/kg dw	

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Ensure that eyewash stations and safety showers are close to the workstation location.
Avoid contact with skin, eyes and clothing.
Do not breathe vapours or spray mist.

Engineering measures
Use with local exhaust ventilation.

Personal protective equipment
Respiratory protection:
In the case of vapour formation use a respirator with an approved filter.

Hand protection:
Glove material: Viton®
Break through time: > 480 min
Glove thickness: 0,7 mm
Vitoject® 890
Gloves must be inspected prior to use.
Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.
Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.
Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time.
Manufacturer´s directions for use should be observed because of great diversity of types .
Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:
Safety goggles

Skin and body protection:
Protective suit

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	colourless
Odour	:	aromatic
molecular weight	:	106,17 g/mol
Melting point/freezing point	:	-34 °C
Boiling point/boiling range	:	136 - 140 °C
Flammability	:	Not applicable
Upper explosion limit	:	7 %(V)
Lower explosion limit	:	1,1 %(V)
Flash point	:	25 °C

Auto-ignition temperature	:	No data available
pH	:	Not applicable
Viscosity, kinematic	:	0,75 mm2/s at 25 °C
Water solubility	:	0,2 g/l at 20 °C
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	5 - 10 hPa at 20 °C
Density	:	0,87 g/cm3
Relative vapour density	:	3,66 (Air = 1.0)

9.2 Other Information

Evaporation rate	:	No data available
Viscosity, dynamic	:	0,61 mPa.s at 20 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.
Vapours may form explosive mixture with air.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:
LD50
Species: Rat
Value: 3.523 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.

LD50
Species: Mouse
Value: 5.251 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.

Acute dermal toxicity:
Classification based on Annex VI of regulation 1272/2008/EC.

Acute inhalation toxicity:
Classification based on Annex VI of regulation 1272/2008/EC.

Skin irritation:
Classification based on Annex VI of regulation 1272/2008/EC.

Eye irritation:
Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

Respiratory or skin sensitisation:
Not classified due to data which are conclusive although insufficient for classification.

Carcinogenicity:

Note: Not classified due to data which are conclusive although insufficient for classification.

Germ cell mutagenicity:
Note: Not classified due to data which are conclusive although insufficient for classification.

Reproductive toxicity:
Remarks: Not classified due to data which are conclusive although insufficient for classification.

Aspiration hazard:
Classification based on Annex VI of regulation 1272/2008/EC.

11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:
No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:
NOEC
Species: Oncorhynchus mykiss (rainbow trout)
Value: > 1,3 mg/l
Exposure time: 56 d

Toxicity to aquatic plants:
Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

Toxicity to Microorganisms:
Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

Toxicity to aquatic invertebrates:
Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

12.2. Persistence and degradability

Biodegradability:
Inherently biodegradable.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

Do not flush into surface water or sanitary sewer system.
Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:
Dispose according to legal requirements.

Packaging:
Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:
Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number

ADR/RID:1307 IMDG:1307 IATA:1307

14.2 UN proper shipping name

ADR/RID:XYLENES
IMDG:XYLENES
IATA:Xylenes

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID:no Marine pollutant: no

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Basis	Value	Remarks
Directive 2012/18/EC Listed in Regulation : P5c: FLAMMABLE LIQUIDS	**Quantity**: 5.000.000 kg **Quantity**: 50.000.000 kg	

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	808250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051

Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
	Munich : 089/19240
Latvia	+37167042473

Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Xylene (mixture of isomers)	:	H226	Flammable liquid and vapour.
		H332	Harmful if inhaled.
		H312	Harmful in contact with skin.
		H315	Causes skin irritation.
		H319	Causes serious eye irritation.
		H335	May cause respiratory irritation.
		H373	May cause damage to organs through prolonged or repeated exposure.
		H304	May be fatal if swallowed and enters airways.
		H412	Harmful to aquatic life with long lasting effects.
ethylbenzene (Impurity)	:	H225	Highly flammable liquid and vapour.
		H332	Harmful if inhaled.
		H373	May cause damage to organs through prolonged or repeated exposure.
		H304	May be fatal if swallowed and enters airways.
		H412	Harmful to aquatic life with long lasting effects.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:
EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level

PNEC Predicted no effect level
vPvB Very persistent and very biaccumulative substance
PBT Persistent, bioaccmulative und toxic substance

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