



## Safety data sheet

Printing date 20.01.2011

Version number 13

Revision: 20.01.2011

**\* 1 Identification of the substance/mixture and of the company/undertaking**· **Product identifier**

- **Trade name:** Xylene, Mixed xylenes
- **CAS Number:** 1330-20-7
- **EINECS Number:** 215-535-7
- **Index number:** 601-022-00-9
- **Registration number** 01-2119488216-32-0023
- **Chemical name** Benzene, dimethyl-
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**
  - Raw material for industrial use.
  - Intermediate
  - Lacquer solvent/ Varnish thinner
  - Solvents

· **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:** Polimeri Europa S.p.A.  
Piazza Boldrini, 1  
I-20097 San Donato Milanese (MI)  
N° telefono: +39 02 520 1
- **E-mail address of the competent person responsible for the SDS:** e-mail: SDS.PE@polimerieuropa.com
- **Emergency telephone number:** Centro Nazionale di Informazione Tossicologica (24h): (+39) 0382 24444

**\* 2 Hazards identification**

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
  - GHS02 flame
  - Flam. Liq. 3 H226 Flammable liquid and vapour.
  - GHS08 health hazard
  - STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
  - Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
  - GHS07 exclamation mark
  - Acute Tox. 4 H312 Harmful in contact with skin.
  - Acute Tox. 4 H332 Harmful if inhaled.
  - Skin Irrit. 2 H315 Causes skin irritation.
  - Eye Irrit. 2 H319 Causes serious eye irritation.
  - STOT SE 3 H335 May cause respiratory irritation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
  - Xn; Harmful
  - R20/21-65: Harmful by inhalation and in contact with skin. Harmful: may cause lung damage if swallowed.
  - Xi; Irritant

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R36/37/38: Irritating to eyes, respiratory system and skin.

R10: Flammable.

**Information concerning particular hazards for human and environment:**

Not applicable.

**Label elements****Labelling according to****Regulation (EC) No 1272/2008** The substance is classified and labelled according to the CLP regulation.**Hazard pictograms**

GHS02

GHS07

GHS08

**Signal word**

Danger

**Hazard-determining****components of labelling:**m-xylene  
o-xylene  
p-xylene  
ethylbenzene**Hazard statements**H226 Flammable liquid and vapour.  
H312 Harmful in contact with skin.  
H332 Harmful 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.  
H304 May be fatal if swallowed and enters airways.**Precautionary statements**P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P243 Take precautionary measures against static discharge.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.



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**3 Composition/information on ingredients**

- **Chemical characterization: Substances**
- **CAS No. Description** 1330-20-7 xylene
- **Identification number(s)**
- **EINECS Number:** 215-535-7
- **Index number:** 601-022-00-9

· <b>Dangerous components:</b>		
CAS: 108-38-3 EINECS: 203-576-3	m-xylene Xn R20/21; Xi R38 R10 ----- GHS02 Flam. Liq. 3, H226; GHS08 Asp. Tox. 1, H304; GHS07 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	35%
CAS: 95-47-6 EINECS: 202-422-2	o-xylene Xn R20/21; Xi R38 R10 ----- GHS02 Flam. Liq. 3, H226; GHS08 Asp. Tox. 1, H304; GHS07 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	25%
CAS: 106-42-3 EINECS: 203-396-5	p-xylene Xn R20/21; Xi R38 R10 ----- GHS02 Flam. Liq. 3, H226; GHS08 Asp. Tox. 1, H304; GHS07 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	20%
CAS: 100-41-4 EINECS: 202-849-4	ethylbenzene Xn R20; F R11 ----- GHS02 Flam. Liq. 2, H225; GHS07 Acute Tox. 4, H332	15%

**4 First aid measures**

- **Description of first aid measures**
- **General information:** Involve doctor immediately.  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** If breathing has stopped, perform artificial respiration.  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately remove any clothing soiled by the product.  
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Give activated carbon in water suspension and remove the substance by gastric lavage.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** Dizziness

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- **Indication of any immediate medical attention and special treatment needed**
  - Nervous system effects, headache, nausea, vomiting, drowsiness, narcosis.
  - Irritation of respiratory tract.
  - Eyes reddening.
  - No further relevant information available.

**5 Firefighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** on combustion it can emit irritating and toxic fumes
- **Advice for firefighters**
- **Protective equipment:** Wear suitable protective clothing (helmet, goggles, fire resistant gloves, boots) and protect respiratory organs (self contained breathing apparatus).  
Mouth respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Keep ignition sources away - Do not smoke.  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Stop the spillage if the operation is not dangerous.  
Move, if possible, the damaged container outside to an isolated and well-ventilated area.  
Ensure adequate ventilation.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Reduce and dilute the vapours by spraying with nebulized water.  
Delimit the contaminated area until the risk of high concentrations in the air has been removed.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.



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**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling** Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air). During the processing of the product, avoid inhalation of fumes or powders, by providing good ventilation of the workroom and, if necessary, by a suitable exhaust system. Ensure that suitable extractors are available on processing machines. Keep receptacles tightly sealed. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Avoid naked flames. Remove ignition sources. Avoid sparks. Do not smoke. Take precautionary measures against static discharges. Earth all equipment. Fumes can combine with air to form an explosive mixture. Equipments must be earthed, to avoid static electric charges. Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Protect against electrostatic charges.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store receptacle in a well ventilated area. Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

· <b>Ingredients with limit values that require monitoring at the workplace:</b>	
<b>108-38-3 m-xylene</b>	
WEL	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
<b>95-47-6 o-xylene</b>	
WEL	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV

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<b>106-42-3 p-xylene</b>	
WEL	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
<b>100-41-4 ethylbenzene</b>	
WEL	Short-term value: 552 mg/m <sup>3</sup> , 125 ppm Long-term value: 441 mg/m <sup>3</sup> , 100 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Working protective equipments may change according to the possible exposure and dangerousness of working conditions.
- **Respiratory protection:** Full face gas mask with organic vapour filter(type A) or self-contained breathing apparatus.  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:** Protective gloves  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves** The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles
- **Body protection:** Use protective suit.

**\* 9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - **Form:** Fluid
  - **Colour:** Not determined.
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.

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- **Change in condition**
  - Melting point/Melting range:** Undetermined.
  - Boiling point/Boiling range:** 136°C
- **Flash point:** 27°C
- **Ignition temperature:** 430°C
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Not determined.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Explosion limits:**
  - Lower:** 1.3 Vol %
  - Upper:** 15.3 Vol %
- **Vapour pressure at 20°C:** 9.5 hPa
- **Density at 20°C:** 0.86 g/cm<sup>3</sup>
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Segregation coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic at 20°C:** 1 mPas
  - Kinematic:** Not determined.
  - Organic solvents:** 95.0 %
- **Other information** No further relevant information available.

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**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Avoid the contact with oxidising substances.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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## 11 Toxicological information

## · Information on toxicological effects

## · Acute toxicity:

## · LD/LC50 values relevant for classification:

**108-38-3 m-xylene**

Oral	LD50 (24h)	5000 mg/kg (rat)
Dermal	LD50	14100 mg/kg (rabbit)

**95-47-6 o-xylene**

Oral	LD50	3600 mg/kg (rat)
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**106-42-3 p-xylene**

Oral	LD50 (24h)	5000 mg/kg (rat)
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**100-41-4 ethylbenzene**

Oral	LD50 (24h)	3500 mg/kg (rat)
Dermal	LD50	17800 mg/kg (rabbit)

## · Primary irritant effect:

· on the skin: Irritant to skin and mucous membranes.

· on the eye: Irritating effect.

· Sensitization: No sensitizing effects known.

## 12 Ecological information

## · Toxicity

## · Aquatic toxicity:

**108-38-3 m-xylene**

EC50 (96h)	21 mg/l (Lepomis macrochirus)
	29 mg/l (Phimephales promelas)
	35 mg/l (Poecilia reticulata)
LC50(24h)	165 mg/l (Daphnia Magna)

**95-47-6 o-xylene**

EC50 (96h)	21 mg/l (Lepomis macrochirus)
	165 mg/l (Daphnia Magna)
	29 mg/l (Phimephales promelas)
	35 mg/l (Poecilia reticulata)

· Persistence and degradability Moderately /partly biodegradable

## · Behaviour in environmental systems:

· Bioaccumulative potential Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.

· Mobility in soil No further relevant information available.

## · Additional ecological information:

· General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

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Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**

The same safety consideration apply to scraps/waste as apply to the product as it is. Residues should be disposed of as required by national and local regulations. Product surplus or wastes resulting from the normal use, must be handled according to the precautions and individual protective measures, as indicated under Sections 7 and 8. The incineration must be done under approved conditions, possibly with energy recovery and only at suitable facilities equipped with a scrubber for the treatment of fumes before their release into the atmosphere. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 30
- **UN-Number:** 1307
- **Packaging group:** III
- **Hazard label:** 3
- **UN proper shipping name:** 1307 XYLENES
- **Tunnel restriction code** D/E

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1307
- **Label** 3

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· Packaging group:	III
· EMS Number:	F-E,S-E
· Marine pollutant:	No
· Proper shipping name:	XYLENES
· MARPOL:	ANNEX II: Y
· ICAO/IATA Class:	3
· UN/ID Number:	1307
· Label	3
· Packaging group:	III
· Proper shipping name:	XYLENES
· UN "Model Regulation":	UN1307, XYLENES, 3, III
· Special precautions for user	Warning: Flammable liquids.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Information about limitation of use: Please check if the use of this substance is regulated by EC 2001/8 Directive (IPPC)
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**16 Other information**

- Relevant phrases
  - H225 Highly flammable liquid and vapour.
  - H226 Flammable liquid and vapour.
  - 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.
  - R10 Flammable.
  - R11 Highly flammable.
  - R20 Harmful by inhalation.
  - R20/21 Harmful by inhalation and in contact with skin.
  - R38 Irritating to skin.
- Department issuing MSDS: QHSE/NOCE
- \* Data compared to the previous version altered. Data and information contained in this Safety Data Sheet are based on our available knowledge at the last revision date. No guarantee can be given as to the sufficiency of any safety measures contained in this Safety Data Sheet, nor can it be assumed that other or additional measures may not be required under particular or exceptional circumstances. The user must make sure of the fitness and completeness of the

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information, according to the specific use they want to do.