

MATERIAL SAFETY DATA SHEET (MSDS)

P-XYLENE (FOR SYNTHESIS)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE

Product name : p-Xvlene 106-42-3 CAS-No

Product Coad: SS0120300500

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 3) Acute toxicity, Inhalation (Category 4) Acute toxicity, Dermal (Category 4)

Skin irritation (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Flammable. Harmful by inhalation and in contact with skin. Irritating to skin.

Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram

Signal word Warning

Hazard statement(s)

Flammable liquid and vapour. H226

H312 Harmful in contact with skin.

H315 Causes skin irritation. H332 Harmful if inhaled. Precautionary statement(s)

P280 Wear protective gloves/ protective clothing.

Supplemental Hazard none

Statements

According to European Directive 67/548/EEC as amended.

Hazard symbol(s) R-phrase(s) R10 Flammable.

R20/21 Harmful by inhalation and in contact with skin.

R38 Irritating to skin.

S-phrase(s)

Avoid contact with eyes. S25

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

: 1,4-Dimethylbenzene Synonyms

Formula : C8H10

Molecular Weight : 106,17 g/mol Component Concentration

p-Xylene

CAS-No. 106-42-3 EC-No. 203-396-5 Index-No. 601-022-00-9

4. FIRST AID MEASURES

Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact Wash off with soap and plenty of water. Consult a physician. In case of eye contact Flush eyes with water as a precaution.

If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Most important symptoms and effects, both acute and delayed

narcosis, Lung irritation, chest pain, pulmonary edema, Central nervous system depression,

Gastrointestinal disturbance, Liver injury may occur., Kidney injury may occur., Blood disorders

Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES



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Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations.

Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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 place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Specific end uses no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Immersion protection

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm Break through time: > 480 min

Material tested: Vitoject® (Z677698, Size M)

Splash protection

Material: Nitrile rubber Minimum layer thickness: 0,4 mm

Break through time: > 30 min

Material tested:Camatril® (Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374,

contact the supplier of the CE approved gloves. This recommendation is advisory only and must



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be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our

customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance Form: liquid, clear

Colour: colourless

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting point/freezing 13,0 °C point

f) Initial boiling point and 137,0 - 138,0 °C

boiling range

g) Flash point 25,0 °C - closed cup

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower Upper explosion limit: 7 %(V)

flammability or Lower explosion limit: 1,1 %(V) explosive limits

k) Vapour pressure 21,3 hPa at 37,7 °C

12,0 hPa at 20,0 °C

I) Vapour density no data available

m) Relative density 0,86 g/cm3

n) Water solubility 0,2 g/l

o) Partition coefficient: n- log Pow: 3,15

octanol/water

p) Autoignition 529,0 °C

temperature

g) Decomposition no data available

temperature

r) Viscosity no data available

s) Explosive properties no data available

t) Oxidizing properties no data available

Other safety information

Surface tension 28,3 mN/m at 20,0 °C

10. STABILITY AND REACTIVITY

Reactivity no data available
Chemical stability no data available
Possibility of hazardous reactions no data available
Conditions to avoid Heat, flames and sparks.
Incompatible materials Strong oxidizing agents
Hazardous decomposition products

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 5.000 mg/kg

LC50 Inhalation - rat - 4 h - 4550 ppm

Remarks: Lungs, Thorax, or Respiration:Chronic pulmonary edema. Liver:Other changes. Blood:Changes

in cell count (unspecified).

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitization no data available

Germ cell mutagenicity no data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (p-Xylene)

Reproductive toxicity

May cause reproductive disorders.

Specific target organ toxicity - single exposure no data available

Specific target organ toxicity - repeated exposure no data available



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Aspiration hazard no data available

Potential health effects

Inhalation Harmful if inhaled. Causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin Harmful if absorbed through skin. Causes skin irritation.

Signs and Symptoms of Exposure

narcosis, Lung irritation, chest pain, pulmonary edema, Central nervous system depression, Gastrointestinal disturbance, Liver injury may occur., Kidney injury may occur., Blood disorders

Additional Information RTECS: ZE2625000

12. ECOLOGICAL INFORMATION

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 2,60 mg/l - 96 h

LC50 - Carassius auratus (goldfish) - 18,00 mg/l - 24 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 35,50 - 63,10 mg/l - 48 h

other aquatic invertebrates

Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 3,20 - 4,40 mg/l - 72 h

Persistence and degradability no data available Bioaccumulative potential no data available

Mobility in soil no data available

Results of PBT and vPvB assessment no data available

Other adverse effects Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging Dispose of as unused product.

14. TRANSPORT INFORMATION

UN number

ADR/RID: 1307 IMDG: 1307 IATA: 1307

UN proper shipping name

ADR/RID: XYLENES (p-Xylene) IMDG: XYLENES (p-Xylene) IATA: Xylenes (p-Xylene)

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

no data available

15 - REGULATORY INFORMATION

N/A

16. Other Information

Product Use: Laboratory Reagent.



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In accordance with REACH Regulation (CE) No 1907/2006 and with CLP Regulation (CE) No 1272/2008

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