



SAFETY DATA SHEET

Date of issue: 17/10/05

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Catalogue No: 36071

ID No.: 1029300

Product name: **Xylene low in sulphur special for microscopy (mixed isomers)**

Use of the substance/preparation: General chemical reagent / Organic solvent

Manufacturer/supplier identification

Company: VWR International Ltd
Hunter Boulevard, Magna Park, Lutterworth, Leicestershire, England, LE17 4XN
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2. Composition/information on ingredients

Chemical characterization

Hydrocarbon solvent

Product name: Xylene (mixed isomers)
Synonyms: Dimethylbenzene

CAS number: 1330-20-7

EC-No.: 215-535-7

EC Index No.: 601-022-00-9

Molecular formula: $C_8H_{10}(CH_3)_2$, = 106.17 g/mol

3. Hazards identification

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

4. First aid measures

- Eye contact: Irrigate thoroughly with water for at least 10 minutes. If discomfort persists, obtain medical attention.
- Inhalation: Remove from exposure, rest and keep warm. In severe cases obtain medical attention.
- Skin contact: Wash off thoroughly with soap and water. Remove contaminated clothing and wash before re-use. In severe cases, OBTAIN MEDICAL ATTENTION.
- Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink. OBTAIN MEDICAL ATTENTION.

5. Fire-fighting measures

Special risks:

Flammable. Vapour/air mixture explosive.

Suitable extinguishing media:

Foam, dry powder, carbon dioxide or vaporising liquids

6. Accidental release measures

Shut off all sources of ignition. Inform others to keep at a safe distance. Wear appropriate protective clothing. Ensure supply of fresh air in enclosed rooms. Do not allow to enter sewerage system.

Absorb on an inert absorbent, (e.g. BDH Spillage absorption granules), transfer to a suitable container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

7. Handling and storage

Handling:

All electrical equipment must be flameproofed. Take precautions against static discharge. Do not breathe vapour. Immediately change contaminated clothing. Do not empty into drains.

Unsuitable working materials: rubber, various plastics.

Storage:

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture.

8. Exposure controls/personal protection

UK Exposure Limits:

WEL - Xylene, o, m, p or mixed isomers:

Long term: 220 mg/m³ (50 ppm) Short term: 441 mg/m³ (100 ppm) (IOELV, Sk)

Personal protective equipment:

Engineering methods to control or prevent exposure are preferred. Methods could include process enclosure or mechanical ventilation.

As appropriate to the situation and the quantity handled.

- Ventilation: Fume cupboard, flameproof
- Respirator: Self-contained breathing apparatus
- Gloves: Viton™, Polyvinyl alcohol or PE/EVAL (Silver Shield). Gloves subject to permeation or any sign of degradation must be removed and replaced immediately.
- Eye Protection: Goggles or face-shield
- Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

9. Physical and chemical properties

General information:

Form:	liquid
Colour:	colourless
Odour:	characteristic

Health, safety and environmental information:

Melting temperature	-95°C
Boiling temperature	140°C
Density(g/ml)	0.86
Vapour pressure	6.7mmHg, 21°C
Relative vapour density:	3.66
Solubility in water	Immiscible or insoluble
Flash point	25°C
Explosion limits:	lower: 1.1 %v/v
	upper: 7 %v/v
Auto-ignition temperature	465°C
Log P(o/w):	3.1 - 3.2

10. Stability and reactivity

Stable.

Substances to be avoided: strong oxidizing agents, conc. sulphuric acid, nitric acid, sulphur.
The possibility of reaction with other substances cannot be excluded.

Explosion possible when mixed with air in a vaporous/gaseous state when heated.

11. Toxicological information

Acute toxicity:

- Inhalation may lead to the formation of oedemas in the respiratory tract.
- After skin contact: Irritation. Degreasing effect on the skin, possibly followed by secondary inflammation. After long-term exposure to the chemical: dermatitis
- After eye contact: Slight irritation.
- After ingestion: gastrointestinal symptoms. Risk of aspiration upon vomiting.
- After absorption of toxic quantities: Drowsiness, dizziness, euphoria, excitation, spasms, in certain circumstances narcosis. Effect potentiated by: ethanol. Possible effects on: liver, urinary tract.

Subacute to chronic toxicity:

After long-term exposure to the chemical: Results from animal experiments indicate possible teratogenic effects.

Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

Further data

LDLo (oral, human): 50 mg/kg
LD50 (oral, rat): 4300 mg/kg
LC50 (inhalation, rat): 5000 ppm/4h
LD50 (dermal, rabbit): ~4500 mg/kg
Skin irritation test (rabbit): (500mg/24h): moderate irritant effect
Eye irritation test (rabbit): (5mg/24h): severe irritant effect
Mutagenicity (mammal cell test) micronucleus negative
Bacterial mutagenicity: Bacillus subtilis: negative

We have no evidence of carcinogenic effects. Evidence of teratogenic effects.

12. Ecological information

Substance floats on surface of water. Risk of formation of explosive vapours above water surface. Bioaccumulation potential:

medium (Log Pow 2-4). Harmful to aquatic organisms.

Further ecological data:

Fish toxicity:

LC50 (Onchorhynchus mykiss): 14 mg/l/96h

LC50 (L.idus): 86/mg/l/48h

Daphnia toxicity:

EC50 (Daphnia magna): 165 mg/l/24h

Remarks:

Hazard for drinking water supplies. Do not allow to enter drinking water supplies, waste water, or soil!

13. Disposal considerations

Chemical residues are generally classified as hazardous or special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

When recovery and recycling is not possible, incineration in a high temperature incinerator is the recommended method of disposal.

14. Transport information

UN-No.: 1307

Class: 3

Packaging group: III

Proper shipping name: XYLENES

15. Regulatory information

Labelling according to EC directives

Symbol(s): Xn Harmful.

R-phrases: R10-20/21-38

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

S-phrases: S25

Avoid contact with eyes.

EC-No.: 215-535-7

Local Regulations

Within the UK, the use of this material must be assessed under the Control of Substances Hazardous to Health (COSHH) regulations.

Within the UK, the use of this material must be assessed under the Dangerous Substances and Explosive Atmospheres (DSEAR) Regulations.

16. Other information

Revision.

Supersedes edition of: 14/03/02

Reason for alteration: Changes in Section : 9, 11, 12. General update.

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