



MATERIALS SAFETY DATA SHEET (MSDS) p - xylene (C8H10)	MSDS Number:	
	Version number:	
	Date issued:	
	Page No:	

1. Product Identification

Chemical name	p - xylene
Other means of identification	1,4-Dimethylbenzene
CAS No	106-42-3
Product use	Laboratory chemicals
Uses advised against	Food, drug, pesticide or biocidal product use.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer Supplier	
E-Mail	Entity 1 Made by India
Contact Person	
Emergency Telephone	

2. Hazard(s) identification

OSHA/HCS status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
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Classification of the substance or mixture

Flammable Liquids	Category 3
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Acute dermal toxicity	Category 4
Acute Inhalation Toxicity - Vapors	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure) Target Organs - Central nervous system (CNS), Respiratory system.	Category 3
Aspiration Toxicity	Category 1

GHS label elements	
Hazard pictogram(s)/Symbols	
Signal word	Danger
Hazard statements	Flammable liquid and vapor May be fatal if swallowed and enters airways Causes skin irritation Causes serious eye irritation May cause respiratory irritation Harmful in contact with skin or if inhaled
Precautionary statements	Entity 1 Made by India
Prevention	Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. Keep away from heat/sparks/open flames/hot surfaces. - No smoking Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell
Skin	Call a POISON CENTER or doctor/physician if you feel unwell If skin irritation occurs: Get medical advice/attention



	<p>If skin irritation occurs: Get medical advice/attention IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse.</p>
Eyes	<p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.If eye irritation persists: Get medical advice/attention</p>
Ingestion	<p>IF SWALLOWED: Immediately call a POISON CENTER or doctor/physicianDo NOT induce vomiting.</p>
Fire	<p>In case of fire: Use CO2, dry chemical, or foam for extinction.</p>
Storage	<p>Store locked up Store in a well-ventilated place. Keep container tightly closed.</p>
Disposal	<p>Dispose of contents/container to an approved waste disposal plant.</p>
Hazards not otherwise classified (HNOC)	<p>Harmful to aquatic life with long lasting effects.</p>

3. Composition and ingredient information

Chemical name	CAS number	%
p-xylene	106-42-3	99

4. First-aid measures

Entity 1 | Made by India

Eye Contact	<p>Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.</p>
Skin Contact	<p>Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.</p>
Inhalation	<p>Remove to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Risk of serious damage to the lungs (by aspiration).</p>
Ingestion	<p>Aspiration hazard. DO NOT induce vomiting. Call a physician or poison control centre immediately. If vomiting occurs naturally, have victim lean forward.</p>



Most important symptoms and effects Notes to Physician	Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Treat symptomatically
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5. Fire-fighting measures

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 firefighting 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 vapours, 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. For personal protection see section 8.
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).

7. Handling and storage

Handling	Use only under a chemical fume hood. Use spark-proof tools and explosion-proof equipment. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only non-sparking tools.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area. Incompatible Materials. Strong oxidizing agents. Strong acids. Strong bases.



8. Exposure Controls/ Personal Protection

Ingredient name	Exposure limits
p-Xylene	<p>ACGIH TLV:</p> <p>TWA: 100 ppm</p> <p>STEL: 150 ppm</p> <p>NIOSH IDLH</p> <p>IDLH: 900 ppm</p> <p>TWA: 100 ppm</p> <p>TWA: 435 mg/m³</p> <p>STEL: 150 ppm</p> <p>STEL: 655 mg/m³</p>

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures	Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.



9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Colour	colourless
Odour	aromatic
Melting point/freezing point	13.25 °C at 1.013 hPa (ECHA)
Boiling point or initial boiling point and boiling range	138.2 °C at 1.013 hPa (ECHA)
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	0.9 vol% (LEL) – 6.7 vol% (UEL)
Flash point	27 °C at 1.013 hPa (ECHA)
Auto-ignition temperature (liquids and gases)	528 °C at 1.013 hPa (ECHA) (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	0.8837 mm ² /s at 25 °C
Dynamic viscosity	0.76 mPa s at 25 °C
Solubility(ies)	
Water solubility	0.17 g/l at 25 °C (ECHA)
Partition coefficient	
Partition coefficient n-octanol/water (log value):	3.15 (pH value: 7, 20 °C) (ECHA)
Soil organic carbon/water (log KOC)	2.73 (ECHA)
Vapour pressure	8.89 hPa at 20 °C
Density and/or relative density	
Density 0,86 g/cm³ at 25 °C (ECHA)	0.86 g/cm ³ at 25 °C (ECHA)
Relative vapour density	Information on this property is not available.
Particle characteristics	not relevant (liquid)



Other safety parameters	
Oxidising properties	None
Other information	
Information with regard to physical hazard classes:	There is no additional information.
Other safety characteristics:	
Surface tension	29.76 mN/m (25 °C) (ECHA)
Temperature class (EU, acc. to ATEX)	T1 Maximum permissible surface temperature on the equipment: 450°C

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions
Conditions to Avoid	Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition
Incompatible Materials	Strong oxidizing agents, Strong acids, Strong bases
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrocarbons, Aldehydes
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions	None under normal processing

11. Toxicological information

Information on toxicological effects

Acute toxicity	LD50 Oral - Rat - 5,000 mg/kg(p-Xylene) LD50 Oral - Rat - male - 3,523 mg/kg(p-Xylene) LC50 Inhalation - Rat - 4 h - 4550 ppm(p-Xylene) Remarks: Lungs, Thorax, or Respiration: Chronic pulmonary edema. Liver:Other changes. Blood:Changes in cell count (unspecified).
Skin corrosion/irritation	Skin - Rabbit(p-Xylene) Result: Moderate skin irritation - 4 h



Serious eye damage/eye irritation	No data available(p-Xylene)
Respiratory or skin sensitisation	No data available(p-Xylene)
Germ cell mutagenicity	No data available(p-Xylene)
Carcinogenicity	IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (p-Xylene)
Reproductive toxicity	May cause reproductive disorders. (p-Xylene)
Specific target organ toxicity - single exposure	No data available(p-Xylene)
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available (p-Xylene)

Additional Information

RTECS: ZE2625000

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

12. Ecological information

Toxicity

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) – 2.60 mg/l - 96 h(p-Xylene) LC50 - Carassius auratus (goldfish) – 18.00 mg/l - 24 h(p-Xylene)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) – 35.50 - 63.10 mg/l - 48 h(p-Xylene)
Toxicity to algae	EC50 - Pseudokirchneriella subcapitata (green algae) - 3.20 - 4.40 mg/l - 72 h(p-Xylene)

Persistence and degradability	
Biodegradability	Result: 87.8 % - Readily biodegradable
Bioaccumulative potential	No data available
Mobility in soil	No data available (p-Xylene)



Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.
Other adverse effects	Toxic to aquatic life.

13. Disposal considerations

Waste Disposal Methods	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.
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14. Transport information

<u>DOT</u>	
UN-No	UN1307
Proper Shipping Name	XYLENES
Hazard Class	3
Packing Group	III

<u>TDG</u>	
UN-No	UN1307
Proper Shipping Name	XYLENES
Hazard Class	3
Packing Group	III

<u>IATA</u>	
UN-No	UN1307
Proper Shipping Name	XYLENES
Hazard Class	3
Packing Group	III



IMDG/IMO	
UN-No	UN1307
Proper Shipping Name	XYLENES
Hazard Class	3
Packing Group	III

15. Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

16. Any other relevant information

History

Product name	
Product code	
Date of printing	Entity 1 Made by India
Date of issue/Date of revision	
Date of previous issue	
Version	
Prepared by	

17. Change Details