

Xylene usage policy

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Product and Company Identification

- **Product name:** Xylenes
- **Synonyms:** Xylene mixture of isomers
- **Company :** Sigma-Aldrich Chemicals Pvt Limited
- **Address:** Plot No 12 Bommasandra - Jigani Link Road
560100, Bangalore, INDIA
- **Ingredients:**
- Xylene, C.A.S.: No- 1330-20-7,
Flam. Liq. 3; Acute Tox. 4; Skin Irrit. 2;
- Ethylbenzene C.A.S.: No- 100-41-4,
Flam. Liq. 2; Acute Tox. 4;

Key Danger of Xylenes

Health Hazard Data

- **NFPA Rating : Health-2, Flammability-2 Stability-1**
- **Major Health Hazards :** Flammable. Harmful by inhalation and in contact with skin. Irritating to skin.

Acute toxicity, Inhalation (Category 4), Acute toxicity, Dermal (Category 4), Skin irritation (Category 2)

- **Color:** clear, liquid, colourless
- **Odor:** 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.
- **Eyes** Causes eye burns.
- **Chronic Exposure:** Chronic inhalation can cause headache, loss of appetite, nervousness and pale skin. Repeated or prolonged skin contact may cause a skin rash. Repeated exposure of the eyes to high concentrations of vapor may cause reversible eye damage. Repeated exposure can damage bone marrow, causing low blood cell count. May damage the liver and kidneys.

Fire and Explosion Hazard Data:

- Flammability Limits in air % by volume: LEL: 1.0; UEL: 7.0
- Flash point: 29 °C (84F) CC
- Auto-ignition temperature: 464⁰C (867F)
- **Explosion:**

Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. Sensitive to static discharge.

- **Fire Extinguishing Media:**

Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

- **Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Vapors can flow along surfaces to distant ignition source and flash back.

Handling and Storage

Reactivity Data:

- **Stability:** Stable under ordinary conditions of use and storage.
- **Hazardous Decomposition Products:** Involvement in a fire causes formation of carbon monoxide and unidentified organic components.
- **Hazardous Polymerization:** Will not occur.
- **Incompatibilities:** Strong oxidizing agents and strong acids.
- **Conditions to Avoid:** Heat, flames, ignition sources and incompatibles.
- **Experiment will be carried out in EC lab :**

Operating Procedure: Mixing in PTFE coating material (Dilution) in chemical/Fume hood in EC lab, AC room. **Usage: Only within chemical/fume hood with exhaust ON**

Special Note : Any other experiments cannot be carried on simultaneously on the work bench to avoid contact with any other chemical.

1. Usage timing: 8 am to 8 pm with users-buddy system
2. Eye Protection: Use of eye goggles
3. Inhalation Protection: Use of Face-mask
4. Skin Protection: Use of hand-gloves
5. Access to fire extinguisher/phone in usage room for emergency – Yes
6. User list: Dr. Sheetal Patil (Nanosniff-9892959365), Deepali Gangrade (9930511447), Mr. Tushar Upadhyay (8097611598),

Storage

- Storage will be in a cool place, EC lab refrigerator
- Separate from other chemicals, with label.
- Will use separate beakers, measuring cylinders etc and placed in a labeled box.

Disposal

- Gas is exhausted through EC Lab Chemical/ fume hood exhaust.
- A separate labeled container will be maintained for the disposal of the used chemical.
- The container would be handed over to chemical safety team for further disposal

Duration of the Experiments

- Experiments will take 1 hr and can be repeated couple of times in a week.
- Duration of the experiment 1.5 months.