

SAFETY DATA SHEET (SDS)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: XYLENE
Other means of identification: None
Recommended use: Industrial solvent
Supplied by: CHEMTEC

E-mail Address : www.epoxychemtec.com
Prepared by: The Health, Safety and Environmental Department
Telephone number of preparer: 1-844-829-1717
Fax number: Not available

Emergency Telephone Number:

24-Hour Emergency Telephone Number Canada (CANUTEC) : (613) 996-6666

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification of hazardous product

Flammable Liquid (Category 3)
Acute toxicity, inhalation (Category 4)
Acute toxicity, dermal (Category 4)
Skin Corrosion/irritation (Category 2)
Serious eye damage/irritation (Category 2B)
Aspiration Hazard (Category 1)
Specific target organ toxicity – (Category 3) respiratory irritant
Specific target organ toxicity – repeated exposure (Category 2)

GHS Label Elements: Hazard Pictograms/symbols



Signal Word: DANGER

Hazard and Precautionary Statements:

H226 Flammable liquid and vapor
H304 May be harmful if swallowed and enters airways
H312 Harmful in contact with skin
H315 Causes skin irritation
H320 Causes eye irritation
H332 Harmful if inhaled
H335 May cause respiratory irritation
H373 May cause damage to organs through prolonged or repeated exposure. (central nervous system, ear, kidney, liver)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. **P233** Keep container tightly closed. **P240** Ground and bond container and receiving equipment. **P241** Use explosion-proof electrical/ ventilating/ lighting/ equipment. **P242** Use non-sparking tools. **P243** Take action to prevent static discharges. **P260** Do not breathe mist/vapours. **P264** Wash with plenty of water and soap thoroughly after handling. **P271** Use only outdoors or in a well-ventilated area. **P273** Avoid release to the environment. **P280** Wear protective gloves/protective clothing/eye protection/face protection. **P301 + P310: IF SWALLOWED:** Immediately call a POISON CENTER or doctor/physician. **P302 + P352 IF ON SKIN:** Wash with plenty of water. **P303 + P361 + P353: IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower. **P304 + P340 IF INHALED:** Remove person to fresh air and keep comfortable for breathing. **P305 + P351 + P338 IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. **P312** Call a POISON CENTER/doctor/...if you feel unwell. **P331** Do NOT induce vomiting. **P332 + P313** If skin irritation occurs: Get medical advice/attention. **P337 + P313** If eye irritation persists: Get medical advice/attention. **P362** Take off contaminated clothing and wash before reuse. **P370 + P378:** In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish. **P403 + P235** Store in a well-ventilated place. Keep cool. **P405** Store locked up. **P501** Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Other Hazards Known: None known

GHS Special Labeling: None known

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SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

***This material is defined as a complex substance**

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration (%)</u>
*Mixed xylenes	1330-20-7	100 %
Ethyl benzene	100-41-4	10 - < 20%

SECTION 4. FIRST AID MEASURES

- Inhalation** IF INHALED: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
- Ingestion** IF SWALLOWED: Seek immediate medical attention. Do NOT induce vomiting.
- Skin Contact** IF ON SKIN: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.
- Eye Contact** IF IN EYES: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay.

Most important symptoms and effects (acute and delayed)

Aside from the information found under description of first aid measures and indication of immediate medical attention and special treatment needed, any additional important symptoms and effects are described on Section 11: Toxicology information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This light hydrocarbon material, or a component, may be associated with cardiac sensitization following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

General Information

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: In case of fire: Water fog, foam, dry chemical or carbon dioxide to extinguish flames.

Unsuitable extinguishing media: Straight streams of water.

Specific hazards arising from the hazardous product: Incomplete combustion products, smoke, fume, oxides of carbon.

Unusual Fire and Explosion Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Advice for firefighters:

Firefighting procedures:

Flammable. Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Use water spray to cool fire exposed surfaces and to protect personnel.

Special protective equipment and precautions for fire-fighting: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Notification Procedures:

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for firefighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

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Methods and materials for containment and cleaning up

Land spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. **Large Spills:** Water spray may reduce vapor; but may not prevent ignition in closed spaces. Recover by pumping or with suitable absorbent.

Water spill: Stop leak if you can do it without risk. Eliminate sources of ignition. Warn other shipping. If the flash point exceeds the ambient temperature by 10 degrees C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the flash point does not exceed the ambient air temperature by at least 10 degrees C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

Environmental Precautions

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid all personal contact. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidelines. This material is a static accumulator.

Conditions for safe storage, including any incompatibilities

Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. The container of choice, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

Suitable Containers/Packing: Tankers, Drums, Tank Trucks, Barges, Tank Cars

Suitable Materials and Coatings: Carbon steel, Polyester, Stainless steel, Teflon

Unsuitable Materials and Coatings: Natural Rubber, Butyl Rubber, Ethylene-propylene-diene monomer (EPDM), polystyrene, polyethylene, polypropylene, PVC, polyvinyl alcohol, polyacrylonitrile, compatibility with plastics may vary.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters (biological limit values or exposure limit values and source of those values)

Exposure limits:

	<u>Form</u>	<u>Source</u>	<u>Limit/Standard</u>	
CAS 1330-20-7		OSHA Z1	TWA	435 mg/m ³
	Vapor	ExxonMobil	RCP-TWA	434 mg/m ³
		ACGIH	STEL	150 ppm
		ACGIH	TWA	100 ppm
CAS 100-41-4		OSHA Z1	TWA	435 mg/m ³
		ACGIH	TWA	20 ppm

Engineering Controls

Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. Exhaust systems should be designed to move the air away from the source of vapor/ aerosol generation and people working at this point. Lethal concentrations may exist in areas with poor ventilation.

Personal Protective Equipment

Eye/face protection: Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Polyvinyl alcohol (“PVA”). Ethyl vinyl alcohol laminates (“EVAL”). Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Notice: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but no limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on task.

Respiratory protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of

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respirators to be considered for this material include: Half-face filter respirator. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State/ Appearance/ Color:	Liquid, Clear	Vapour Pressure:	0.8 KPa (6 mmHg at 20°C)
Odour:	Aromatic	Vapour Density:	<1 at 101 KPa (air =1)
Odour threshold:	Not available	Relative Density:	0.869 (g/ml)
pH:	Not available	Solubility:	Negligible
Melting/freezing point:	-39 °C (-39 °F) / -54°C (-65 °F)	Partition coefficient-n-octanol/water:	3.12-3.16
Initial boiling point/range:	136-145 °C (277-292 °F)	Auto-ignition temperature:	432 °C (810°F)
Flash point (closed cup):	>23°C (73°F)	Decomposition temperature:	Not available
Evaporation rate:	0.85 (n-butyl acetate=1)	Viscosity:	Not available
Flammability (solids and gases):	Flammable	VOC:	869 g/L
Upper and lower flammability/explosive limits	Lower 0.9% (V) Upper 7.0% (V)	Other:	None known

SECTION 10. STABILITY AND REACTIVITY

Reactivity: This product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: This product is stable under normal conditions.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to Avoid: Avoid heat, sparks, open flames and other ignition sources.

Incompatible materials: Strong oxidizers.

Hazardous decomposition products: Material does not decompose at ambient temperatures.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely routes of exposure (inhalation, ingestion, skin and eye contact):

Minimally toxic if inhaled. Minimally toxic if ingested. Minimally toxic in contact with skin. Irritating to the skin. Moderately irritating to the eyes. Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

Symptoms related to the physical, chemical and toxicological characteristics:

Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Very high exposure (confined spaces/abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias. Repeated co-exposure to monoaromatic hydrocarbons contained in this product in excess of recognized occupational exposure limits and noise levels in excess of 85 dB(A) may increase the risk of hearing impairment.

Delayed and immediate effects (chronic effects from short- term and long-term exposure):

Skin Sensitization – No data available; **Respiratory Sensitization** – No data available; **Germ Cell Mutagenicity** – No data available; **Carcinogenicity** – Ethyl benzene caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain. **Reproductive Toxicity** – No data available ; **Specific Target Organ Toxicity — Single Exposure** – May be irritating to the respiratory tract; **Specific Target Organ Toxicity - Repeated Exposure** – Concentrated, prolonged, or deliberate exposure may cause organ damage (central nervous system, ear, kidney, liver); **Aspiration Hazard** – No data available ; **Health Hazards Not Otherwise Classified** – No data available.

Numerical measures of toxicity (ATE; LD₅₀ & LC₅₀):

CAS 1330-20-7 Inhalation Lethality: 4 hour(s) LC₅₀ >20.0 mg/L (vapor) (Rat)
Oral Lethality: LC₅₀ >3523 mg/kg (Rat)
Dermal Lethality: LC₅₀ >4200 mg/kg (Rabbit)

CAS 100-41-4 Inhalation Lethality: 4 hour(s) LC₅₀ 17.8 mg/L (vapor) (Rat)
Oral Lethality: LD₅₀ 3.5 g/kg (Rat)

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial information):

Material is expected to be toxic to aquatic organisms. Not expected to demonstrate chronic toxicity to aquatic organisms.

Product	Species	Result
CAS 1330-20-7 / CAS 100-41-4	LC ₅₀ Oncorhynchus mykiss	2.6 mg/L - 96h
	EC ₅₀ Daphnia magna	1 mg/L – 24h
	ErC ₅₀ Pseudokirchneriella subcapitata	4.36 mg/L – 73h
	NOEC Oncorhynchus mykiss	>1.3 mg/L – 56days
	NOEC Daphnia magna	1.5 mg/L – 21days
	NOEC Pseudokirchneriella subcapitata	0.44 mg/L – 73h

Persistence and degradability: Material is expected to be readily biodegradable.

Bioaccumulative potential: Potential for material to bioaccumulate is low.

Mobility in soil: Material is highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Other adverse effects: No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Information on safe handling for disposal/methods of disposal/contaminated packaging: Dispose of contents/container into safe container in accordance with local, regional or national regulations. Containers, even those that have been emptied, can contain vapors. Do not pressurise, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death.

SECTION 14. TRANSPORT INFORMATION

UN Number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations:

UN1307; XYLENES; CLASS 3; PG III

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime):

UN1307; XYLENES; CLASS 3; PG III, (>23°C c.c)

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air):

UN1307; XYLENES; CLASS 3; PG III

Special Precautions(transport/conveyance): None

Environmental hazards (IMDG or other): No

Bulk transport (usually more than 450L in capacity): Possible.

SECTION 15. REGULATORY INFORMATION

Safety/health Canadian regulations specifics: Refer to section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).

Environmental Canadian regulations specifics: Refer to section 3 for ingredient(s) of the DSL.

Safety/health/environmental outside regulations specifics: None

SECTION 16. OTHER INFORMATION

Date of latest revision of the safety data sheet:

13 October 2016

Disclaimer:

NOTICE TO READER:

CHEMTEC expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, CHEMTEC makes no representations as to its accuracy or sufficiency. Conditions of use are beyond CHEMTEC's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

END OF S.D.S.



PRODUCT IDENTIFIER – XYLENE
DATE & VERSION - 13 October 2016 Version 1

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