



# SAFETY DATA SHEET

## XYLENE

000003000580

Version 1.0

Revision Date 2015/05/20

Print Date 2015/05/29

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name - XYLENE  
Synonyms - Nitration grade xylene; mixed xylenes (O-, m-, p-) ,depleted-xylenes; dimethylbenzene  
Supplier's details  
Varouh Oil Inc.  
Emergency telephone number  
Poison Control: +1-800-222-1222

#### Recommended use of the chemical and restrictions on use

Recommended use Produced as a petrochemical from paraffinic hydrocarbons; component of crude oil; found in various refinery streams; laboratory solvent.

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	liquid
Color	colorless
Odor	Mild sweet

#### GHS Classification

Flammable liquids .. Category 2  
Acute toxicity (Inhalation) .. Category 4  
Acute toxicity (Dermal) .. Category 4  
Skin irritation .. Category 2  
Eye irritation .. Category 2A  
Carcinogenicity .. Category 2  
Reproductive toxicity .. Category 1B

Specific target organ toxicity :- Aspiration hazard:  
single exposure

Specific target organ toxicity :- GHS Label element  
repeated exposure Hazard pictograms

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Signal word:

H360 May damage fertility or the unborn child. H373  
May cause damage to organs through prolonged or  
repeated exposure.

Hazard statements:

### Prevention:

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read  
and understood.  
P210 Keep away from heat/sparks/open flames/hot surfaces.  
No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/  
lighting/ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ eye protection/ face protection.  
P281 Use personal protective equipment as required.

Precautionary statements :

Category 3 (Respiratory  
system, Central nervous  
system)

Category 2

Category 1



### Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON  
CENTER or doctor/ physician.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off  
immediately all contaminated clothing. Rinse skin with water/  
shower.  
P304 + P340 + P312 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.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with  
water Potential Health Effects Primary Routes of Entry

Danger

H225 Highly flammable  
liquid and vapour.

H304 May be fatal if  
swallowed and enters  
airways.

H312 + H332 Harmful  
in contact with skin or  
if inhaled H315

Causes skin irritation.

H319 Causes serious eye  
irritation.

H335 May cause  
respiratory irritation.

H336 May cause  
drowsiness or dizziness.

H351 Suspected of causing  
cancer.

Target Organs

Inhalation

Skin

Eyes

Ingestion

Aggravated Medical Condition

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Carcinogenicity: IARC

approved waste disposal plant.

### ACGIH

Eye contact  
Ingestion  
Inhalation  
Skin contact

### OSHA

for several minutes.

Remove contact lenses, if present and easy to do.

Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

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 dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place.

Keep container tightly closed.

P403 + P235 Store in a well-ventilated place.

Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an

Skin

May cause respiratory tract irritation.

Causes skin irritation.

May cause eye irritation.

Ingestion of this material may cause irritation to the mouth, throat, and gastro-intestinal tract.

None known.

Group 2B: Possibly carcinogenic to humans

Ethylbenzene

100—41 —4

Confirmed animal carcinogen with unknown relevance to humans

Ethylbenzene

100-41-4

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture                      Mixture

#### Hazardous components

Chemical Name	CAS-No.	Concentration (%)
lene	1330-20-7	90 - 100%
eth Ibenzene	100-41-4	20- 30%
toluene	108-88-3	1 - 5 %

Note: Concentration of xylene isomers may vary.

### SECTION 4. FIRST AID MEASURES

- If inhaled    .. Move to fresh air.  
Artificial respiration and/or oxygen may be necessary.  
Seek medical advice.
- In case of skin contact                            .. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Wash clothing before reuse.  
Seek medical advice.
- In case of eye contact                            .. Remove contact lenses.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice.
- If swallowed    ..Rinse mouth with water.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.  
Seek medical advice.
- Protection of first-aiders                        ..First Aid responders should pay attention to self-protection and use the recommended protective clothing  
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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Notes to physician	..No specific treatment. Treat symptomatically. For specialist advice physicians should contact the Poisons Information Service.	

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### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	.. Dry chemical Water spray Foam Carbon dioxide (CO <sub>2</sub> ) Do NOT use water jet.
Unsuitable extinguishing media	..media
Hazardous combustion products	.. Carbon oxides (CO, CO <sub>2</sub> ), reactive hydrocarbons, aldehydes, smoke and irritating vapours as products of incomplete combustion.
Further information	.. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Special protective equipment for firefighters	..Wear self-contained breathing apparatus and full protective wear.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	.. Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions. Wear proper protective equipment as specified in the protective equipment section.
Environmental precautions	..Do not allow uncontrolled discharge of product into the environment. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	..Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be used. Ensure adequate ventilation. Contact the proper local authorities.

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### SECTION 7. HANDLING AND STORAGE

Advice on safe handling	For personal protection see section 8.
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Smoking, eating and drinking should be prohibited in the application area.

Do not ingest.

Avoid contact with skin, eyes and clothing.

Use only with adequate ventilation.

Keep away from heat and sources of ignition.

Keep container closed when not in use.

Conditions for safe storage : Store in original container.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Keep in a dry, cool and well-ventilated place.  
Keep in properly labelled containers.  
To maintain product quality, do not store in heat or direct sunlight.  
Store in accordance with the particular national regulations.  
Store in a place accessible by authorized persons only.  
Keep away from sources of ignition - No smoking.  
Store in a fireproof area.  
Use only explosion-proof equipment.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-NO.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
lene	1330-20-7	TWA	100 m	ACGIH
		STEL	150 m	ACGIH
eth lbenzene		TWA	100 ppm 435 m /m3	OSHA Z-1 ACGIH
		TWA	100 ppm 435 m /m3	NIOSH REL
		ST	125 ppm 545 m /m3	NIOSH REL
		TWA	100 ppm 435 m /m3	OSHA Z-1
		TWA	100 ppm 435 m /m3	OSHA PO
		STEL	125 ppm 545 m /m3	OSHA PO

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toluene	108-88-3	TWA	20 m	ACGIH
		TWA	100 ppm 375 m /m3	NIOSH REL
		ST	150 ppm 560 m /m3	NIOSH REL
		TWA	200 m	OSHA Z-2
		CEIL	300 m	OSHA Z-2
		Peak	500 m	OSHA Z-2
		TWA	100 ppm 375 m /m3	OSHA PO
		STEL	150 ppm 560 m /m3	OSHA PO

### Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
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Toluene	108-88-3	Toluene	In blood	Prior to last shift of workweek	0.02 mg/l	ACGIH BEI
Toluene		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI

Engineering measures

Use only in well-ventilated areas.

Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.

Personal protective equipment

Respiratory protection:

Protective measures:

Filter type:

Hygiene measures :Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hand protection

Material:

A NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive-pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Remarks:

polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals.

Eye protection:

Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

Skin and body protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when

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handling chemical products if a risk assessment indicates this is necessary.	abnormal processing problems. Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Wear face-shield and protective suit for	Wash contaminated clothing before re-use. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	.. liquid
Color	.. colorless
Odor	.. Mild sweet
Odor Threshold	.. No data available
pH	.. No data available
Pour point	.. No data available
Boiling point/boiling range	.. 137 - 143 °C (279 - 289 °F)
Flash point	* 17 °C (63 °F) Method: closed cup
Auto-Ignition Temperature	.. 464 °C (867 °F)
Evaporation rate	.. No data available
Flammability	.. Flammable in presence of open flames, sparks and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. Rapid escape of gas may generate static charge causing ignition. This product can accumulate static charge and ignite. May accumulate in confined spaces.
Upper explosion limit	
Lower explosion limit	
Vapour pressure	..6- 6.5 mmHg (20 °C / 68 °F)
Relative vapour density	.. 3.7
Relative density	..
Density	..0.862 - 0.872 g/ml (20 °C / 68 °F)
Solubility(ies)	
Water solubility	..insoluble

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Partition coefficient: n-octanol/water	„ No data available
Viscosity	
Viscosity, kinematic	„ 0.717 - 0.864 cSt (20 °C / 68 °F)
Explosive properties	„ Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Containers may explode in heat of fire. Runoff to sewer may create fire or explosion hazard.

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### SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	„ Hazardous polymerization does not occur. Stable under normal conditions.
Conditions to avoid	„ Extremes of temperature and direct sunlight.
Incompatible materials	„ Reactive with oxidizing agents, sulfur dichloride and acids.
Hazardous decomposition products	„ May release COX, reactive hydrocarbons, aldehydes, smoke and irritating vapours when heated to decomposition.

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### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	Eye contact Ingestion Inhalation Skin contact
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#### Acute toxicity

##### Product:

Acute oral toxicity	Remarks: No data available
Acute inhalation toxicity	Remarks: No data available
Acute dermal toxicity	Remarks: No data available

##### Components:

##### xylene:

Acute oral toxicity	LD50 (Rat): 4,300 mg/kg
Acute inhalation toxicity	LC50 (Rat): 5000 ppm Exposure time: 4 h Test atmosphere: dust/mist

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Acute dermal toxicity ethylbenzene:	LD50 (Rabbit): > 1 ,700 mg/kg
Acute oral toxicity	LD50 (Rat): 3,500 mg/kg
Acute inhalation toxicity	LC50 (Rat): 4000 ppm Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity toluene:	LD50 (Rabbit): 15,380 mg/kg

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Acute oral toxicity	LD50 (Rat): 5,580 mg/kg
Acute inhalation toxicity	LC50 (Rat): 7585 ppm Exposure time: 4 h Test
Acute dermal toxicity	atmospher e:
Skin corrosion/irritation	dust/mist
<u>Product:</u> Remarks: No data available	LD50 (Rabbit):
<u>Components:</u> xylene: Result: Skin irritation	12,125 mg/kg
ethylbenzene: Result: Moderate skin irritant	
toluene: Result: Moderate skin irritant	
Serious eye damage/eye irritation	
<u>Product:</u> Remarks: No data available	
<u>Components:</u> ethylbenzene: Result: Mild eye irritation	
toluene: Result: Mild eye irritation	
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT - single exposure	No data available
STOT - repeated exposure	No data available



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Proper shipping name ..Xylenes

Class ..3

Packing group

Labels ..3

Packing instruction (cargo aircraft) ..366

IMDG-Code

UN number : 1307

Proper shipping name : XYLENES

Class : 3

Packing group

Labels : 3

EmS Code : F-E, S-D

Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73178 and the IBC Code  
Not applicable for product as supplied.

49 CFR

UN/ID/NA number ..1307

Proper shipping name ..Xylenes

Class ..3

Packing group

Labels ..3

ERG Code ..130

Marine pollutant ..no

Special precautions for user

Not applicable

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### SECTION 15. REGULATORY INFORMATION

The components of this product are reported in the following inventories:

DSL On the inventory, or in compliance with the inventory

TSCA All chemical substances in this product are either listed on the T SCA Inventory or are in compliance with a T SCA Inventory exemption.

EINECS On the inventory, or in compliance with the inventory

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### SECTION 16. OTHER INFORMATION

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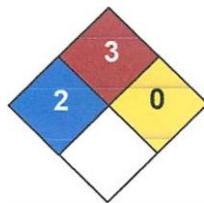
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HEALTH	2*
FLAMMABILITY	3
PHYSICAL HAZARD	
PERSONAL PROTECTION	

### Further information

#### NFPA:

Flammability

Special hazard.

#### HMIS III:

O = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

For copy of (M)SDS:Internet: [www.petro-canada.ca/msds](http://www.petro-canada.ca/msds)

Canada-wide: telephone: 1-800-668-0220; fax: 1-800-8371228

For Product Safety Information: 1 905-804-4752

Prepared by:Product Safety: +1 905-804-4752

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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