



# Monarch Oil (Kitchener) Limited

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Revision Date: 04/04/2007

Print Date: 6/6/2007

MSDS Number: R0004340

## SAFETY DATA SHEET

### XYLENE

### AC560

#### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)

Product name XYLENE

#### 2. HAZARDS IDENTIFICATION

##### Emergency Overview

Appearance: liquid, mild, Colorless

WARNING!

Flammable Liquid, Moderate skin irritant, Moderate eye irritant

##### Potential Health Effects

##### **Routes of Exposure**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

##### **Eye Contact**

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes., May cause mild eye irritation. Symptoms include stinging, tearing, and redness., Additional symptoms of eye exposure may include:, blurred vision

##### **Skin Contact**

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage., Additional symptoms of skin contact may include:, skin blistering, Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

##### **Ingestion**

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful., This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

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## Inhalation

Breathing of vapor or mist is possible., Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful., Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

## Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:., respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, male reproductive system, auditory system, Individuals with preexisting heart disorders maybe more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

## Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:., metallic taste, redness of the face and neck, mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), tight feeling in the chest, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, effects on memory, muscle weakness, respiratory depression (slowing of the breathing rate), shortness of breath, loss of coordination, confusion, irregular heartbeat, narcosis (dazed or sluggish feeling), coma, and death

## Target Organs

Prolonged intentional toluene abuse may lead to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene., Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:., respiratory tract damage (nose, throat, and airways), testis damage, kidney damage, liver damage, effects on hearing, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:., central nervous system effects, kidney damage

## Carcinogenicity

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Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. The International Agency for Research on Cancer (IARC) has classified ethylbenzene as a possible human carcinogen.

## Reproductive Hazard

This material (or a component) may be harmful to the human fetus based on positive test results with laboratory animals., This material (or a component) has been shown to cause birth defects in laboratory animal studies. The relevance of these findings to humans is uncertain., Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.

## Other Information

No data

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
XYLENE	1330-20-7	>=77-%
ETHYL BENZENE	100-41-4	>=22-%

## 4. FIRST AID MEASURES

### General Information

#### Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention. If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

#### Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

#### Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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## Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

## Notes to Physician

**Hazards:** Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media :

dry chemical, foam, carbon dioxide (CO<sub>2</sub>)

### Hazardous Combustion Products:

May form:, carbon dioxide and carbon monoxide, various hydrocarbons

### Precautions for Fire-Fighting:

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77., Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids., Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process

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conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

### Environmental Precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

### Methods for Cleaning Up

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

## 7. HANDLING AND STORAGE

### Handling:

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

### Storage:

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

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1330-20-7

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## XYLENE

OEL (QUE)	time weighted average	100 ppm	
OEL (QUE)	time weighted average	434 mg/m3	
OEL (QUE)	Short term exposure limit	150 ppm	
OEL (QUE)	Short term exposure limit	651 mg/m3	
CAD AB OEL	time weighted average	100 ppm	
CAD AB OEL	time weighted average	434 mg/m3	
CAD AB OEL	Short term exposure limit	150 ppm	
CAD AB OEL	Short term exposure limit	651 mg/m3	
CAD BC OEL	time weighted average	100 ppm	
CAD BC OEL	time weighted average	0.5 ppm	Vapor and aerosol, inhalable
CAD BC OEL	Short term exposure limit	150 ppm	
CAD ON OEL	time weighted average	100 ppm	
CAD ON OEL	time weighted average	435 mg/m3	
CAD ON OEL	Short term exposure limit	150 ppm	
CAD ON OEL	Short term exposure limit	650 mg/m3	

## ETHYL BENZENE

100-41-4

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OEL (QUE)	time weighted average	100 ppm
OEL (QUE)	time weighted average	434 mg/m3
OEL (QUE)	Short term exposure limit	125 ppm
OEL (QUE)	Short term exposure limit	543 mg/m3
CAD AB OEL	time weighted average	100 ppm
CAD AB OEL	time weighted average	434 mg/m3
CAD AB OEL	Short term exposure limit	125 ppm
CAD AB OEL	Short term exposure limit	543 mg/m3
CAD BC OEL	time weighted average	100 ppm
CAD BC OEL	Short term exposure limit	125 ppm
CAD ON OEL	time weighted average	100 ppm
CAD ON OEL	time weighted average	435 mg/m3
CAD ON OEL	Short term exposure limit	125 ppm
CAD ON OEL	Short term exposure limit	540 mg/m3

**Exposure Controls** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

### Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

### Skin and Body Protection

Wear resistant gloves (consult your safety equipment supplier)., To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

### Respiratory Protection

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If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	liquid	
<b>Form</b>		No data
<b>Colour</b>	Colorless	
<b>Odour</b>	mild, aromatic	
<b>Boiling point/range</b>	137.00 °C	@
<b>Melting point/range</b>	-47.00 °C	@
<b>pH</b>		No data
<b>Flash point</b>	26.66 °C	
<b>Evaporation rate</b>	0.86	N-Butyl Acetate
<b>Explosion limits</b>	1.0 %(V)	6.6 %(V)
<b>Vapour pressure</b>	1.065227 kPa	25 °C
<b>Vapour density</b>	3.66	
<b>Density</b>	0.87 g/cm <sup>3</sup>	20 °C
	7.25 lb/gal	@ 25 °C
<b>Solubility</b>	negligible	water
<b>Partition coefficient (n-octanol/water)</b>		No data
<b>Autoignition temperature</b>		No data

## 10. STABILITY AND REACTIVITY

**Stability:**  
Stable.

**Conditions to Avoid:**  
Avoid contact with:

**Incompatible Products:**  
Avoid contact with:, strong oxidizing agents

**Hazardous Decomposition Products:**  
May form:, carbon dioxide and carbon monoxide, various hydrocarbons

**Hazardous Reactions:**  
Product will not undergo hazardous polymerization.

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## Thermal Decomposition

No data

## 11. TOXICOLOGICAL INFORMATION

### Acute Oral Toxicity

XYLENE 1330-20-7

LD 50: Rat 4,300 mg/kg

ETHYL BENZENE 100-41-4

LD 50: Rat 3,500 mg/kg

### Acute Dermal Toxicity

XYLENE 1330-20-7

LD 50: Rabbit 2,000 mg/kg

ETHYL BENZENE 100-41-4

LD 50: Rabbit 15,433 mg/kg

### Acute Inhalation Toxicity

XYLENE 1330-20-7

ETHYL BENZENE 100-41-4

LC Lo: Rat 4000 ppm

## 12. ECOLOGICAL INFORMATION

No data

## 13. DISPOSAL CONSIDERATIONS

### Waste Disposal Methods

Dispose of in accordance with all applicable local, state and federal regulations., For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.





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Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Switzerland. Consolidated Inventory	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)
Japan. Kashin-Hou Law List	y (positive listing)
New Zealand. Composite List of Single Component Substances to be considered for Transfer	y (positive listing)
Japan. Industrial Safety & Health Law (ISHL) List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
US. Toxic Substances Control Act	y (positive listing)
EU. EINECS	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)

	Health	Flammability	Reactivity	Other
HMIS	1	3	0	
NFPA	2	3	0	

## 16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.