

# MATERIAL SAFETY DATA SHEET

## m-Xylene

### Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	m-Xylene, 99+%
<b>Synonyms:</b>	1,3-Dimethylbenzene
<b>Company Identification: (INDIA)</b>	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
<b>For information in the INDIA, call:</b>	Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
108-38-3	m-Xylene	99%	203-576-3

<b>Hazard Symbols:</b>	XN
	
<b>Risk Phrases:</b>	10 20/21 36/38

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Flammable. Harmful by inhalation and in contact with skin. Irritating to eyes and skin.*

#### Potential Health Effects

<b>Eye:</b>	Causes redness and pain. Causes severe eye irritation and possible injury.
<b>Skin:</b>	Harmful if absorbed through the skin. Exposure may cause irritation characterized by redness, dryness, and inflammation. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Substance is readily absorbed through the skin.
<b>Ingestion:</b>	Aspiration hazard. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Exposure may cause anemia and other blood abnormalities. May cause effects similar to those of acute inhalation.
<b>Inhalation:</b>	Harmful if inhaled. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Inhalation of vapor may cause respiratory tract irritation. Irritation may lead to chemical pneumonitis and pulmonary edema. May cause vomiting, diarrhea, hemorrhage, labored breathing, weakness, unsteady gait, and coma.
<b>Chronic:</b>	Prolonged or repeated skin contact may cause defatting and dermatitis. May cause liver and kidney damage. Effects may be delayed. Narcotic in high concentrations.

## Section 4 - First Aid Measures

<b>Eyes:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
<b>Skin:</b>	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
<b>Ingestion:</b>	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
<b>Inhalation:</b>	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
<b>Notes to Physician:</b>	Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.
<b>Extinguishing Media:</b>	Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective. Cool containers with flooding quantities of water until well after fire is out.

## Section 6 - Accidental Release Measures

<b>General Information:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Spills/Leaks:</b>	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Use water spray to reduce vapors, do not put water directly on leak, spill area or inside container.

## Section 7 - Handling and Storage

<b>Handling:</b>	Wash thoroughly after handling. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
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<b>Storage:</b>	Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.
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## Section 8 - Exposure Controls, Personal Protection

### Engineering Controls:

	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.
<b>Exposure Limits</b>	CAS# 108-38-3:
	United Kingdom, WEL - TWA: 50 ppm TWA; 220 mg/m <sup>3</sup> TWA United Kingdom, WEL - STEL: 100 ppm STEL; 441 mg/m <sup>3</sup> STEL
	United States OSHA: 100 ppm TWA; 435 mg/m <sup>3</sup> TWA (Xylenes (o-, m-, p- isomers)).
	Belgium - TWA: 50 ppm VLE; 221 mg/m <sup>3</sup> VLE Belgium - STEL: 150 ppm VLE; 442 mg/m <sup>3</sup> VLE
	France - VME: 50 ppm VME; 221 mg/m <sup>3</sup> VME France - VLE: 100 ppm VLE; 442 mg/m <sup>3</sup> VLE
	Germany: ( xylenes (o-, m-, p- isomers)): 50 ppm VME; 221 mg/m <sup>3</sup> VME Germany: ( xylenes (o-, m-, p- isomers)): skin notation
	Japan: 50 ppm OEL; 217 mg/m <sup>3</sup> OEL
	Malaysia: 100 ppm TWA; 434 mg/m <sup>3</sup> TWA
	Netherlands: ( xylenes (o-, m-, p- isomers)): 50 ppm MAC; 210 mg/m <sup>3</sup> MAC
	Russia: 50 mg/m <sup>3</sup> TWA (vapour)
	Spain: 50 ppm VLA-ED; 221 mg/m <sup>3</sup> VLA-ED Spain: 100 ppm VLA-EC; 442 mg/m <sup>3</sup> VLA-EC

### Personal Protective Equipment

<b>Eyes:</b>	Wear chemical splash goggles.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	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.

## Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Clear liquid
<b>Color:</b>	colorless
<b>Odor:</b>	aromatic odor
<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	8mbar @20 deg C
<b>Viscosity:</b>	0.62 mPa.s @20 deg C
<b>Boiling Point:</b>	139 - 139 deg C @760mmHg
<b>Freezing/Melting Point:</b>	-48 deg C ( -54.40°F)
<b>Autoignition Temperature:</b>	465 deg C ( 869.00 deg F)
<b>Flash Point:</b>	25 deg C ( 77.00 deg F)

<b>Explosion Limits: Lower:</b>	1.7 Vol %
<b>Explosion Limits: Upper:</b>	7.6 Vol %
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	0.2 g/l water (20°C)
<b>Specific Gravity/Density:</b>	0.864 g/cc
<b>Molecular Formula:</b>	C8H10
<b>Molecular Weight:</b>	106.17

## Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Stable.
<b>Conditions to Avoid:</b>	High temperatures, incompatible materials, ignition sources.
<b>Incompatibilities with Other Materials</b>	Ignition sources, strong acids, coatings, plastics, rubber.
<b>Hazardous Decomposition Products</b>	Carbon monoxide, carbon dioxide.
<b>Hazardous Polymerization</b>	Will not occur.

## Section 11 - Toxicological Information

<b>RTECS#:</b>	CAS# 108-38-3: ZE2275000
<b>LD50/LC50:</b>	RTECS: <b>CAS# 108-38-3</b> : Draize test, rabbit, eye: 5 mg/24H Severe; Draize test, rabbit, skin: 20 mg/24H Moderate; Inhalation, mouse: LC50 = 5267 ppm/6H; Oral, rat: LD50 = 4988 mg/kg; Skin, rabbit: LD50 = 14100 uL/kg; Other:
<b>Carcinogenicity:</b>	m-Xylene - IARC: Group 3 (not classifiable)
<b>Other:</b>	See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

<b>Other:</b>	Biodegradable. Do not empty into drains.
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## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

	<b>IATA</b>	<b>IMO</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	XYLENES	XYLENES	XYLENES
<b>Hazard Class:</b>	3	3	3
<b>UN Number:</b>	1307	1307	1307
<b>Packing Group:</b>	III	III	III

USA RQ: CAS# 108-38-3: 1000 lb final RQ; 454 kg final RQ

## Section 15 - Regulatory Information

<b>European/International Regulations</b>
European Labeling in Accordance with EC Directives
<b>Hazard Symbols:</b> XN
<b>Risk Phrases:</b>
➤ R 10 Flammable.
➤ R 20/21 Harmful by inhalation and in contact with skin.

- R 36/38 Irritating to eyes and skin.

**Safety Phrases:**

- S 25 Avoid contact with eyes.

**WGK (Water Danger/Protection)**

- CAS# 108-38-3: Not available

**Canada**

- CAS# 108-38-3 is listed on Canada's DSL List

**US Federal**

- TSCA
- CAS# 108-38-3 is listed on the TSCA Inventory.

## Section 16 - Other Information

<b>MSDS Creation Date:</b>	08/16/2007
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<b>Revision #0 Date</b>	
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*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.*

# MATERIAL SAFETY DATA SHEET

## o-Xylene

### Section 1: Chemical Product and Company Identification

<b>MSDS Name:</b>	o-Xylene
<b>Synonyms:</b>	1,2-Dimethylbenzene

<b>Company Identification:</b>	<b>Hazel Mercantile Ltd</b>
<b>Company Identification: (INDIA)</b>	701/712A, Embassy Centre, Nariman Point, Mumbai -400 021,
<b>For information in the INDIA, call:</b>	+91-22-2282 4444 (50 Lines)

### Section 2: Composition and Information on Ingredients

#### Composition:

<b>Name :</b>	o-Xylene
<b>CAS # :</b>	95-47-6
<b>% by Weight :</b>	100

#### Toxicological Data on Ingredients:

<b>o-Xylene - LD50:</b>	Not available.
<b>LC50:</b>	Not available.

### Section 3: Hazards Identification

**Potential Acute Health Effects:** Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

#### Potential Chronic Health Effects:

<b>Carcinogenic Effects:</b>	Not classifiable for human or animal
<b>Mutagenic Effects:</b>	Not available.
<b>Teratogenic Effects:</b>	Classified POSSIBLE for human.
<b>Developmental Toxicity:</b>	Classified Reproductive system/toxin/male [POSSIBLE].

The substance may be toxic to kidneys, liver, upper respiratory tract, skin, eyes, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

#### Section 4: First Aid Measures

Eye Contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.
Skin Contact	Immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. <b>WARNING:</b> It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband
Serious Ingestion	Not available

#### Section 5: Fire and Explosion Data

Flammability of the Product	Flammable
Auto-Ignition Temperature	463°C
Flash Points (CC)	17°C
Flammable Limits	LOWER: 0.9%, UPPER: 6.7%
Products of Combustion	carbon oxides (CO, CO <sub>2</sub> )
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames, sparks & heat
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks, of heat
Fire Fighting Media and Instructions	Flammable liquid, insoluble in water SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog
Special Remarks on Fire Hazards	Vapors are heavier than air and may travel considerable distance to source of ignition and flash back. When heated to decomposition it emits acrid smoke and irritating fumes

Special Remarks on Explosion Hazards	Explosive in the form of vapor when exposed to heat or flame. Vapors may form explosive mixtures with air. Containers may explode when heated. Runoff to sewer may create fire or explosion hazard.
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### Section 6: Accidental Release Measures

Small Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal
Large Spill	Toxic flammable liquid, insoluble or very slightly soluble in water. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

### Section 7: Handling and Storage

**Precautions:** Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.

**Storage:** Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

### Section 8: Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	TWA: 434 STEL: 651 (mg/m <sup>3</sup> ) from ACGIH TWA: 100 STEL: 150 (ppm) from ACGIH STEL: 150 (ppm) from NIOSH

STEL: 655 (mg/m<sup>3</sup>) from NIOSH  
Consult local authorities for acceptable exposure limits

### Section 9: Physical and Chemical Properties:

Physical state and appearance	Liquid
Odor	Aromatic. Sweet
Color	Colorless
pH (1% soln/water)	Not applicable
Boiling Point	144.4°C
Melting Point	-25°C
Critical Temperature	359°C
Specific Gravity	0.88 (Water = 1)
Vapor Pressure	0.9 kPa (@ 20°C)
Vapor Density	3.7 (Air = 1)
Volatility	Not available
Odor Threshold	0.05 ppm
Water/Oil Dist. Coeff	The product is more soluble in oil; log(oil/water) = 3.1
Ionicity (in Water)	Not available
Dispersion Properties	Dispersed in diethyl ether. Is not dispersed in cold water, hot water. See solubility in diethyl ether, acetone.
Solubility	Soluble in diethyl ether, acetone. Insoluble in cold water, hot water

### Section 10: Stability and Reactivity Data

Stability	stable
Instability Temperature	Not available
Conditions of Instability	Heat, ignition sources, flames, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, acids
Corrosivity	Non-corrosive in presence of glass
Special Remarks on Reactivity	Photochemically reactive. Incompatible with strong oxidizers (e.g. chlorine, bromine, fluorine), and strong acids (e.g. nitric acid, acetic acid).
Polymerization	Will not occur
Special Remarks on Corrosivity	Not available

### Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation.

**Toxicity to Animals:** Lowest Published Lethal Dose -Inhalation (LCL): 6125 ppm 12 hours [Rat]; 6125 ppm 12 hours [Human] Lowest Published Lethal Dose -Oral: 5000 mg/kg [Rat]

#### **Chronic Effects on Humans:**

<b>Carcinogenic Effects:</b>	Not classifiable for human or animal
<b>Teratogenic Effects:</b>	Classified POSSIBLE for human.
<b>Developmental Toxicity:</b>	Classified Reproductive system/toxin/male [POSSIBLE].

May cause damage to the following organs: kidneys, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

<b>Other Toxic Effects on Humans:</b>	Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
<b>Special Remarks on Toxicity to Animals:</b>	Not available.
<b>Special Remarks on Chronic Effects on Humans:</b>	May cause adverse reproductive effects (male) and birth defects based on animal data.
<b>Animal:</b>	Embryotoxic, foetotoxic, passes through the placental barrier. Detected in maternal milk in human. Narcotic effect; may cause nervous system disturbances.

**Acute Potential Health Effects**

<b>Skin:</b>	May cause skin irritation. May be absorbed through skin i harmful amounts.
<b>Eyes:</b>	Causes severe eye irritation.
<b>Inhalation:</b>	Causes respiratory tract and mucous membranes irritation. May affect sense organs, behavior (Central Nervous system) which may result in dizziness, general weakness, central nervous system depression, confusion, ataxia, disorientation, lethargy, drowsiness, and headaches. May also affect respiration, cardiovascular system, liver, blood, and digestive system (nausea, vomiting)
<b>Ingestion:</b>	Harmful if swallowed. Causes digestive tract irritation with nausea, vomiting and diarrhea. May also affect metabolism, liver, and urinary system, and central nervous system (excitement followed by headache, dizziness, drowsiness and nausea).

**Chronic Potential Health Effects:**

<b>Skin:</b>	Prolonged or repeated contact may cause defatting of skin and dermatitis.
<b>Eyes:</b>	Prolonged or repeated exposure may cause conjunctivitis or permanent eye damage.
<b>Inhalation:</b>	Chronic inhalation may cause effects similar to those of acute inhalation.

**Section 12: Ecological Information**

Ecotoxicity:	Not available.
BOD5 and COD:	Not available.
<b>Products of Biodegradation:</b>	
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.	
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.	
Special Remarks on the Products of Biodegradation:	Not available.

### Section 13: Disposal Considerations

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14: Transport Information

DOT Classification:	CLASS 3: Flammable liquid.
Identification:	Xylene UNNA: 1307 PG: III
Special Provisions for Transport:	Not available.

### Section 15: Other Regulatory Information

TSCA 8(b) inventory:	o-Xylene
TSCA 8(d) H and S data reporting:	o-Xylene: Effective: 10/4/82; Sunset: 10/4/92
EINECS:	

This product is on the European Inventory of Existing Commercial Chemical Substances.

#### Other Classifications:

**WHMIS (Canada):** CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).  
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

### Section 16: Other Information

MSDS Creation Date:	08/16/2007
Revision #1 Date	

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.*

# MATERIAL SAFETY DATA SHEET

## p-Xylene

### Section 1 - Chemical Product and Company Identification

MSDS Name:	p-Xylene, 99%
Synonyms:	1,4-Dimethylbenzene
Company Identification:	Hazel Mercantile Ltd
Company Identification: (INDIA)	701/712A, Embassy Centre, Nariman Point, Mumbai -400 021,
For information in the INDIA, call:	+91-22-2282 4444 ( 50 Lines)

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
106-42-3	p-Xylene	99%	203-396-5

<b>Hazard Symbols:</b>	XN
	
<b>Risk Phrases:</b>	10 20/21 38

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Flammable. Harmful by inhalation and in contact with skin. Irritating to skin.*

#### Potential Health Effects

<b>Eye:</b>	Causes redness and pain. Causes severe eye irritation and possible injury.
<b>Skin:</b>	Harmful if absorbed through the skin. Exposure may cause irritation characterized by redness, dryness, and inflammation. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Substance is readily absorbed through the skin.
<b>Ingestion:</b>	Aspiration hazard. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Exposure may cause anemia and other blood abnormalities. May cause effects similar to those of acute inhalation.
<b>Inhalation:</b>	Harmful if inhaled. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Inhalation of vapor may cause respiratory tract irritation. Irritation may lead to chemical pneumonitis and pulmonary edema. May cause vomiting, diarrhea, hemorrhage, labored breathing, weakness, unsteady gait, and coma.
<b>Chronic:</b>	Prolonged or repeated skin contact may cause defatting and dermatitis. May cause liver and kidney damage. Effects may be delayed. Narcotic in high concentrations.

### Section 4 - First Aid Measures

<b>Eyes:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
<b>Skin:</b>	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
<b>Ingestion:</b>	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
<b>Inhalation:</b>	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
<b>Notes to Physician:</b>	Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.
<b>Extinguishing Media:</b>	Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective. Cool containers with flooding quantities of water until well after fire is out.

## Section 6 - Accidental Release Measures

<b>General Information:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Spills/Leaks:</b>	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.

## Section 7 - Handling and Storage

<b>Handling:</b>	Wash thoroughly after handling. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
<b>Storage:</b>	Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

## Section 8 - Exposure Controls, Personal Protection

<b>Engineering Controls:</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.
<b>Exposure Limits</b>	CAS# 106-42-3: United Kingdom, WEL - TWA: 50 ppm TWA; 220 mg/m <sup>3</sup> TWA United Kingdom, WEL - STEL: 100 ppm STEL; 441 mg/m <sup>3</sup> STEL United States OSHA: 100 ppm TWA; 435 mg/m <sup>3</sup> TWA (Xylenes (o-, m-, p- isomers)). Belgium - TWA: 50 ppm VLE; 221 mg/m <sup>3</sup> VLE Belgium - STEL: 150 ppm VLE; 442 mg/m <sup>3</sup> VLE

	France - VME: 50 ppm VME; 221 mg/m3 VME France - VLE: 100 ppm VLE; 442 mg/m3 VLE
	Germany: ( xylenes (o-, m-, p- isomers)): 50 ppm VME; 221 mg/m3 VME Germany: ( xylenes (o-, m-, p- isomers)): skin notation
	Japan: 50 ppm OEL; 217 mg/m3 OEL
	Malaysia: 100 ppm TWA; 434 mg/m3 TWA
	Netherlands: ( xylenes (o-, m-, p- isomers)): 50 ppm MAC; 210 mg/m3 MAC
	Russia: 50 mg/m3 TWA (vapour)
	Spain: 50 ppm VLA-ED; 221 mg/m3 VLA-ED Spain: 100 ppm VLA-EC; 442 mg/m3 VLA-EC

#### Personal Protective Equipment

<b>Eyes:</b>	Wear chemical splash goggles.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	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.

## Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Clear liquid
<b>Color:</b>	colorless - clear very slight yellow
<b>Odor:</b>	aromatic odor
<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	8.2 mbar @ 20 deg C
<b>Viscosity:</b>	Not available
<b>Boiling Point:</b>	138 deg C @ 760.00mm Hg ( 280.40°F)
<b>Freezing/Melting Point:</b>	13 deg C ( 55.40°F)
<b>Autoignition Temperature:</b>	525 deg C ( 977.00 deg F)
<b>Flash Point:</b>	25 deg C ( 77.00 deg F)
<b>Explosion Limits: Lower:</b>	1.1 vol %
<b>Explosion Limits: Upper:</b>	7 vol %
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	0.2 g/l water (20°C)
<b>Specific Gravity/Density:</b>	0.866 g/cc
<b>Molecular Formula:</b>	C8H10
<b>Molecular Weight:</b>	106.17

## Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Stable.
<b>Conditions to Avoid:</b>	High temperatures, incompatible materials, ignition sources
<b>Incompatibilities with Other Materials</b>	Ignition sources, strong acids, coatings, nitric acid, plastics, rubber
<b>Hazardous Decomposition Products</b>	Carbon monoxide, carbon dioxide
<b>Hazardous Polymerization</b>	Will not occur

## Section 11 - Toxicological Information

<b>RTECS#:</b>	CAS# 106-42-3: ZE2625000
<b>LD50/LC50:</b>	RTECS: <b>CAS# 106-42-3:</b> Inhalation, rat: LC50 = 4550 ppm/4H; Oral, rat: LD50 = 3910 mg/kg; Other:
<b>Carcinogenicity:</b>	p-Xylene - IARC: Group 3 (not classifiable)
<b>Other:</b>	See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

<b>Ecotoxicity:</b>	Fish: Goldfish: LC50: 18mg/l; 24 h; Fish: Bluegill/Sunfish: LC50: 24-37mg/l; 96 h; Fish: Fathead Minnow: LC50: 24-37mg/l; 96 h; Fish: Goldfish: LC50: 24-37mg/l; 96 h;
<b>Other:</b>	Biodegradable. Do not empty into drains.

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

	IATA	IMO	RID/ADR
<b>Shipping Name:</b>	XYLENES	XYLENES	XYLENES
<b>Hazard Class:</b>	3	3	3
<b>UN Number:</b>	1307	1307	1307
<b>Packing Group:</b>	III	III	III

USA RQ: CAS# 106-42-3: 100 lb final RQ; 45.4 kg final RQ

## Section 15 - Regulatory Information

### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

#### Risk Phrases:

- R 10 Flammable.
- R 20/21 Harmful by inhalation and in contact with skin.
- R 38 Irritating to skin.

#### Safety Phrases:

- S 25 Avoid contact with eyes.

#### WGK (Water Danger/Protection)

- CAS# 106-42-3: 2

#### Canada

- CAS# 106-42-3 is listed on Canada's DSL List

#### US Federal

- TSCA
- CAS# 106-42-3 is listed on the TSCA Inventory.

## Section 16 - Other Information

<b>MSDS Creation Date:</b>	July 26, 2015
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Revision #1 Date	
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*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.*