

SAFETY DATA SHEET

Xylene

SECTION 1: IDENTIFICATION OF MATERIAL AND SUPPLIER

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| Product Name: | Xylene |
| Other Names: | o-Xylene, p-Xylene, m-Xylene |
| Product Codes/Trade Names: | N/A |
| Recommended Use: | Solvent |
| Applicable In: | Australia |
| Supplier: | ACB Group (ABN 79 724 186 134) |
| Address: | 118 Swann Drive, Derrimut Victoria-3030 |
| Telephone: | + 61 3 93690220 |
| Email Address: | info@acbgroup.com.au |
| Facsimile: | +61 3 93690883 |
| Emergency Phone Number: | 000 Fire Brigade and Police (available in Australia only). |
| Poisons Information Centre: | 13 11 26 (available in Australia only). |

This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with National standards and guidelines from the Australian Safety and Compensation Council (ASCC, formerly National Occupational Health and Safety Commission - NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Supplier will issue a new MSDS when there is a change in product specifications and/or ASCC standards, codes, guidelines, or Regulations.

SECTION 2: HAZARD IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: Classified as **Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

XYLENE is classified as **Dangerous** Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

GHS Classification:

Flammable liquids- Category 3
Acute Toxicity, Oral- Category 5
Acute Toxicity, Dermal – Category 4
Acute Toxicity, Inhalation – Category 4
Skin Corrosion/Irritation- Category 2
Serious eye damage/irritation, Category 2A
Aspiration Toxicity- Category 1
Specific target organ toxicity – single exposure, Category 3
Respiratory tract irritation
Hazardous to the Aquatic Environment, Acute Hazard- Category 2

GHS LABEL ELEMENTS

Symbol (s)



Signal Word: Warning

Hazard Statements:

PHYSICAL HAZARDS:

H226: Flammable liquid and vapour.

HEALTH HAZARDS:

H312 Harmful in contact with skin.

H332: Harmful if inhaled.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H303: May be harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H335: May cause respiratory irritation.

ENVIRONMENTAL HAZARDS:

H401: Toxic to aquatic life.

Prevention

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.

P280: Wear protective gloves/protective clothing/eye protection/ face protection.

P281: Use personal protective equipment as required.

P264: Wash hands thoroughly after handling.

Response

P370 +P378: In case of fire: Use appropriate media for extinction.

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P312: Call a POISON CENTRE or doctor/physician if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353: If ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P332+P313: If Skin irritation occurs. Get medical advice/attention.

P322: Specific measures (see details on this label).

P321: Specific treatment (see details on label).

P363: Wash contaminated clothing before reuse.

P362: Take of contaminated clothing and wash before reuse.

Storage

P403+P235: Store in a well-ventilated place. Keep cool.

Disposal

P501: Dispose of contents and container to appropriate waste site of reclaimer in accordance with local and national regulations.

Other Hazards which do not result in classification

Vapours may cause drowsiness and dizziness.

This material is a static accumulator.

Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.

If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.

Toxic to aquatic organisms.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Classification of components according to GHS

| Chemical name | Synonyms | CAS | Hazard Class (Category) | Hazard Statement | Conc. |
|---------------|----------|---------|--|---|-----------|
| Xylene | | 95-47-6 | Flam. Liq., 3; Acute Tox., 5; Acute Tox., 4; Acute Tox., 4; Skin corr., 2; Eye Dam., 2A; Asp. Tox., 1; STOT SE, 3 | H226; H303; H332; H312; H315; H319; H304; H335 | 100.00 %W |

SECTION 4: FIRST AID MEASURES

Information:

Keep victim calm. Obtain medical treatment immediately.

Ingestion: If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within/ the next 6 hours, transport to the nearest medical facility: Fever greater than 101F (38.3C), shortness of breath, chest congestion or continued coughing or wheezing. Give nothing by mouth.

Eyes: Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.

Skin: Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest facility for additional treatment.

Inhaled: DO NOT DELAY. Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

First Aid Facilities: Eye wash fountains and safety showers should be available for emergency use.

Advice to Doctor:

Most important symptoms and effects acute and delayed

Treat Symptomatically. Eye irritation signs and symptoms may include a burning sensation, redness swelling and/or blurred vision. Skin irritation signs and symptoms may include a burning sensation, redness, swelling and/or blisters. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

Immediate medical attention, special treatment

Potential for chemical pneumonitis. Potential for cardiac sensitization, particularly in abuse situations. Hypoxia or negative inotropes may enhance these effects. Consider oxygen therapy. Call a doctor or poison control center for guidance

SECTION 5: FIRE FIGHTING MEASURES

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| Specific Hazards: | The vapour is heavier than air, spreads along the ground and distant ignition is possible. Will float and can be reignited on surface water. Carbon monoxide may be evolved if incomplete combustion occurs. |
| Suitable extinguishing media: | Foam water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. |
| Unsuitable extinguishing media | Do not use water in a jet. |
| Special protective precautions and equipment for fire fighters: | Wear full protective clothing and self-contained breathing apparatus. |
| Other advice | Keep adjacent containers cool by spraying with water. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see chapter 8 of this Material Safety Data Sheet.

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| Personal precautions, protective equipment and emergency procedures. | : Isolate hazard area and deny entry to unnecessary or unprotected personnel. Stay upwind and keep out of low areas. |
| Environmental procedures | : Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Ventilate contaminated area thoroughly. |
| Methods and material for containment and cleaning up. | : For large liquid spills (>1 drum), transfer by mechanical means such as vacuum truck to salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove all contaminated soil and dispose of safely. For small liquid spills (<1 drum), transfer by mechanical means to a labelled sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. |
| Additional advice | : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. The vapor is heavier than air, spreads along the ground and distant ignition is possible. Vapor may form an explosive mixture with air. See Chapter 13 for information on disposal. For guidance on selection of personal protective equipment see chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see chapter 13 of this Material Safety Data Sheet. |

SECTION 7: HANDLING AND STORAGE

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| General precautions | Avoid breathing vapors or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. On guidance on selection of personal protective equipment see chapter 8 of this Material Safety Data Sheet. For comprehensive advice on handling, product transfer, storage and tank cleaning refer to the product supplier. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Avoid contact with skin, eyes and clothing. |
| Precautions for safe handling: | Avoid inhaling vapor and/or mists. Avoid contact with skin, eyes and clothing. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. The vapor is heavier than air. Beware of accumulation in pits and confined spaces. Use local exhaust ventilation if there is risk of inhalation of vapors, mists or aerosols. Bulk storage tanks should be diked (bunded). Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapor mixtures can occur. Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static charges. This include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash, filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (< 1 m/s until fill pipe submerged to twice its diameter, than (< 7 m/s). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. |
| Product Transfer | Refer to guidance under handling section. |
| Recommended materials | For containers, or container linings use mild steel, stainless steel. |
| Unsuitable materials | Natural, butyl, neoprene or nitrile rubbers |
| Container advice | Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operation on or near containers. |

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

| Material | Type | ppm | mg/m3 |
|----------|------|--------|-----------|
| Xylene | TWA | 100ppm | 434 mg/m3 |
| Xylene | STEL | 150ppm | 651 mg/m3 |

Biological Exposure Index (BEI):

No biological limit allocated.

ENGINEERING CONTROLS

- Ventilation:** Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 2430.3.1:1997 : Classification of hazardous areas - Examples of area classification - General, for further information concerning ventilation requirements.
- Appropriate Engineering Controls:** The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls

based on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Use sealed systems as far as possible. Firewater monitors and deluge systems are recommended. Eye washes and showers for emergency use.

PERSONAL PROTECTION

Hand Protection

Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: Longer term protection: Viton. Incidental contact/Splash protection: Nitrile rubber. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Skin Protection:

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Eye Protection:

Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications..

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapors [Type A boiling point > 65°C (149°F)] meeting EN14387. Where respiratory protective equipment is required, use a full-face mask. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Body protection:

Chemical resistant gloves/gauntlets, boots, and apron. Where risk of splashing or in spillage clean up, use chemical resistant one-piece overall with integral hood. Wear antistatic and flame retardant clothing.

Smoking & Other Dusts

Smoking must be prohibited in all areas where this product is used - see safety information on flammability.

Thermal Hazards

Not Applicable

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended exposure measurement methods are given below or contact the supplier.

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colourless liquid
Odour Aromatic
Melting Point Not available.
Distillation range 135-145 °C / 293°F
Solubility in Water approximately 0.2 kg/m³
Specific Gravity (H₂O=1) at 15°C/ 59°F 0.865-0.875 kg/m³
pH Value No data available.
Vapour Pressure 882 Pa at 25°C / 77°F
Vapour Density No data available
Flash Point 27-32°C / 81 - 90°F (Abel Setaflash)
Ignition Temperature No data available
Flammable Limits LEL 1% v/v
Flammable Limits UEL 7% v/v
Kinetic viscosity 0.87 mm²/s at 25°C / 77°F

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.

Incompatible Materials: Will react with strong oxidizing agents.

Conditions to avoid: Heat, sparks, flame and build-up of static electricity.

Hazardous Decomposition Products: Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

Hazardous Reactions: Hazardous polymerisation will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Basis for assessment: Information given is based on product testing, and/or similar products, and/or components.

Likely Routes of exposure: Inhalation is the primary route of exposure although absorption may occur through skin contact or following accidental ingestion.

Acute Toxicity

Acute Oral Toxicity: May be harmful if swallowed LD₅₀ > 2000 - <= 5000 mg/kg

Acute Dermal Toxicity Harmful in contact with skin. LD₅₀ >1000 - <=2000 mg/kg

Acute Inhalation Toxicity Harmful if inhaled. LC₅₀ > 10,0 - <= 20,0 mg/l

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/Irritation Causes serious eye irritation.

Respiratory or skin sensitisation Not expected to be a skin sensitiser.

Aspiration Hazard Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Germ cell mutagenicity Not mutagenic.

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| Carcinogenity | Not expected to be carcinogenic. |
| Reproductive and environmental toxicity | Not a developmental toxicant. Does not impair fertility. |
| Specific target organ | Inhalation of vapours or mists may cause irritation to the respiratory system |
| Toxicity single exposure | Respiratory system |
| Specific target organ repeated exposure | Central nervous system: repeated exposure affects the nervous system. Effects were seen at high doses only. May cause MDS (Myelodysplastic syndrome) |
| Additional information | Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis. |

SECTION 12: ECOLOGICAL INFORMATION

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| Eco-toxicity: | Avoid contaminating waterways. Toxic to fish, aquatic plants and crustacea. |
| Persistence and Degradability: | Major components are inherently biodegradable. Persists under anaerobic conditions. Oxidises rapily by photo-chemical reactions in air. Does not bioaccumulate significantly |
| Mobility: | Floats on water. Adsorbs to soil and has low mobility |

SECTION 13: DIPOSAL CONSIDERATIONS

Dispose of waste according to federal, EPA, state and local regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain hazardous residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

SECTION 14: TRANSPORT INFORMATION

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| Proper Shipping Name: | Xylenes |
| UN number: | 1307 |
| DG Class: | 3 |
| Subsidiary Risk 1: | None Allocated |
| Packaging Group: | III |
| HAZCHEM code: | 3YE |
| Marine Pollutant: | No |
| Special Precautions for User: | Refer to incompatibilities in section 7 and stability and reactivity information in section 10. |
| ADDITIONAL TRANSPORT REQUIREMENTS: | Nil |

SECTION 15: REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Chemical inventory status

Listed in AICS, DLS, INV (CN), ENCS (JP), TSCA, EINECS, KECI (KR) and PICCS (PH)

SECTION 16: OTHER INFORMATION

For further information on this product, please contact:

ACB Group (ABN 79 724 186 134)

118 Swann Drive, Derrimut Victoria-3030

Phone: +61 3 93690220

Fax: + 61 3 93690883

ADDITIONAL INFORMATION

Australian Standards References:

| | |
|-------------|--|
| AS 1020 | The Control of undesirable static electricity. |
| AS 1076 | Code of Practice for selection, installation and maintenance of electrical apparatus and associated equipment for use in explosive atmospheres (other than mining applications) – Parts 1 to 13. |
| AS/NZS 1336 | Recommended Practices for Occupational Eye Protection |
| AS/NZS 1715 | Selection, Use and Maintenance of Respiratory Protective Devices |
| AS/NZS 1716 | Respiratory Protective Devices |
| AS 1940 | The Storage and Handling of Flammable and Combustible Liquids. |
| AS 2161 | Industrial Safety Gloves and Mittens (excluding electrical and medical gloves) |
| AS 2380 | Electrical equipment for explosive atmospheres – Explosion Protection Techniques (Parts 1 to 9). |
| AS 3000 | Electrical installations (known as the Australian/New Zealand Wiring Rules). |

Other References:

| | |
|----------------------|--|
| NOHSC:2011(2003) | National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, April 2003, National Occupational Health and Safety Commission. |
| NOHSC; 2012 (1994) | National Code of Practice for the Labeling of Workplace Substances, March 1994, Australian Government Publishing Service, Canberra. |
| NES | National Occupational Exposure Standards for workplace Atmospheric Contaminants (NES) Australian Safety and Compensation Council, ASCC (Formerly NOHSC) 1995 as amended. |
| ADG Code 6th Edition | Australian Dangerous Goods Code 6th Edition |

AUTHORISATION

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END OF MSDS

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