

SAFETY DATA SHEET

XYLENE

Infosafe No.: IA1W8
ISSUED Date : 22/03/2022
ISSUED by: VIVA ENERGY AUSTRALIA PTY
LTD (FORMERLY: SHELL COMPANY OF
AUSTRALIA LTD)

Section 1 - Identification

Product Identifier

XYLENE

Product Code

T1404

Company Name

VIVA ENERGY AUSTRALIA PTY LTD (FORMERLY: SHELL COMPANY OF AUSTRALIA LTD) (ABN 46 004 610 459)

Address

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Emergency Phone Number

1800 651 818 (Australia) / Poisons Information Centre:13 11 26 (Australia)

Recommended use of the chemical and restrictions on use

Solvent, raw material for use in the chemical industry.

Other Names

Name	Product Code
CARBON NEUTRAL XYLENE	
XYLENE CO2 NEUTRAL	

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Acute toxicity: Category 4 - Dermal

Acute toxicity: Category 4 - Inhalation

Aspiration hazard: Category 1

Eye damage/irritation: Category 2A

Flammable liquids: Category 3

Hazardous to the Aquatic Environment - Acute Hazard: Category 2

Skin corrosion/irritation: Category 2

Specific target organ toxicity (repeated exposure): Category 2

Specific target organ toxicity (single exposure): Category 3 (Respiratory tract irritation)

Signal Word (s)

DANGER

Hazard Statement (s)

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H401 Toxic to aquatic life.

Pictogram (s)

Exclamation mark, Health hazard, Flame



Precautionary Statement – Prevention

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 dust/fume/gas/mist/vapours/spray.
P264 Wash skin 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/hearing protection.

Precautionary Statement – Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor
P331 Do NOT induce vomiting.
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 [or shower].
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
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. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P370+P378 In case of fire: Use foam, water spray or fog. (Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.) to extinguish.

Precautionary Statement – 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.

Precautionary Statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

Other Information

This product contains Ototoxic substances. Combination with noise exposure, even at safe levels, could still cause auditory injuries and hearing loss.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Xylene	1330-20-7	100 %

Preparation Description

Contains 10-20 % ethylbenzene (CAS 100-41-4).

Section 4 - First Aid Measures

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do NOT induce vomiting. Wash out mouth and lips with water. Where vomiting occurs naturally have affected person place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

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

Water jet.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

Specific hazards arising from the chemical

Flammable liquid and vapour. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard.

Hazchem Code

3Y

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode.

In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

Section 6 - Accidental Release Measures

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations.

If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Section 7 - Handling and Storage

Precautions for Safe Handling

Avoid contact with skin and eyes. Wear overalls, impervious gloves and safety glasses. Use in designated areas with local exhaust ventilation, away from sparks, flames and other ignition sources. Use approved flammable liquid storage containers in the work area. Prevent release of vapours and mists into workplace air. Keep containers tightly closed. Take precautionary measures against static discharges. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

Recommended Materials

For containers, or container linings use mild steel, stainless steel.

Unsuitable Materials

Natural, butyl, neoprene or nitrile rubbers.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Xylene

TWA: 80 ppm, 350 mg/m³

STEL: 150 ppm, 655 mg/m³

Ethylbenzene

TWA: 100 ppm, 434 mg/m³

STEL: 125 ppm, 543 mg/m³

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Source: Safe Work Australia

Biological Monitoring

Name: Xylenes

Determinant: Methylhippuric acids

Specimen: Creatinine in urine

Value: 1.5g/g

Sampling time: End of shift

Name: Ethylbenzene
Determinant: Sum of mandelic acid and phenylglyoxylic acid in urine
Value: 0.15 g/g creatinine
Sampling time: End of shift
Notation: Ns
Source: American Conference of Industrial Hygienists (ACGIH)

Control Banding

Not available

Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1 Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye and Face Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series)- Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as nitrile rubber. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Thermal Hazards

No further relevant information available.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	Appearance	Liquid
Colour	Colourless	Odour	Aromatic
Freezing Point	> -48 °C	Boiling Point	136 - 145°C (typical)
Decomposition Temperature	Not available	Solubility in Water	0.175 kg/m ³
Specific Gravity	Not available	pH	Not applicable
Vapour Pressure	4.5 kPa (50°C) (typical) 0.8 - 1.2 kPa (20°C) (typical) 0.2 kPa (0°C) (typical)	Relative Vapour Density (Air=1)	3.7
Evaporation Rate	13.5 (DIN 53170, di-ethyl ether=1) 0.76 (ASTM D 3539, nBuAc=1)	Odour Threshold	0.27 ppm
Viscosity	Not available	Partition Coefficient: n-octanol/water (log value)	3.12 - 3.2
Density	870 kg/m ³ (15°C) (ASTM D-1298) (typical)	Surface Tension	28.7 mN/m (20°C) (ASTM D-971) (typical)
Flash Point	23 - 27°C (Abel) (typical)	Flammability	Flammable
Auto-Ignition Temperature	432 - 530°C (ASTM E-659)	Flammable Limits - Lower	1 %(V)
Flammable Limits - Upper	7.1 %(V)	Molecular Weight	106 g/mol
Kinematic Viscosity	< 0.9 mm ² /s (20°C)	Solubility in other solvents (kg/m ³)	Miscible
Particle Characteristics	Not applicable		

Other Information

Dielectric constant: 2.6 (typical)

Section 10 - Stability and Reactivity

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions of storage and handling.

Possibility of hazardous reactions

Reacts violently with strong oxidising agents.

Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources. Prevent vapour accumulation.

Incompatible Materials

Strong oxidising agents.

Hazardous Decomposition Products

Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Toxicology Information

Toxicity data for material given below.

Acute Toxicity - Oral

LD50 (Rat): >2000 mg/kg

Acute Toxicity - Dermal

LD50 (Rabbit): >2000 mg/kg

Acute Toxicity - Inhalation

LC50 (Rat): >20 mg/l/4h

High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Ingestion

May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause severe pulmonary injury that may lead to death. May cause irritation to the mouth, throat, esophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation

Harmful if inhaled. May cause respiratory irritation. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system.

Skin

Harmful in contact with skin. Product can be absorbed through skin with resultant harmful systemic effects. Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

An increased tumour incidence has been observed in experimental animals; the significance of this finding to man is unknown. (Ethylbenzene)

Ethylbenzene is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Xylene is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Not considered to be toxic to reproduction.

Causes foetotoxicity in animals at doses which are maternally toxic.

STOT - Single Exposure

May cause respiratory irritation.

STOT - Repeated Exposure

May cause damage to organs (hearing organs) through prolonged or repeated exposure.

Aspiration Hazard

May be fatal if swallowed and enters airways.

Other Information

This product contains Ototoxic substances. Combination with noise exposure, even at safe levels, could still cause auditory injuries and hearing loss.

Section 12 - Ecological Information

Ecotoxicity

Toxic to aquatic life. The available ecological data is given below.

Persistence and degradability

Readily biodegradable.

Oxidises rapidly by photo-chemical reactions in air.

Mobility

If product enters soil, it will be highly mobile and may contaminate groundwater.

Floats on water.

Bioaccumulative Potential

Does not bioaccumulate significantly.

Other Adverse Effects

In view of the high rate of loss from solution, the product is unlikely to pose a significant hazard to aquatic life.

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish

Toxic: $1 < LC/EC/IC50 \leq 10$ mg/l

Acute Toxicity - Algae

Toxic: $1 < LC/EC/IC50 \leq 10$ mg/l

Acute Toxicity - Other Organisms

Aquatic Invertebrates: Toxic: $1 < LC/EC/IC50 \leq 10$ mg/l

Hazardous to the Ozone Layer

This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Advise flammable nature. Empty containers may contain flammable residues. Do not cut, puncture or weld on or near containers. 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.

Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected.

To minimise personal exposure to the chemical, refer to Section 8—Exposure controls and personal protection.

Section 14 - Transport Information

Transport Information

Road and Rail Transport (ADG Code):

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1: Explosives

- Division 2.1: Flammable Gases.

(Division 2.1 and Class 3 are incompatible in transport if both are in tanks or other receptacles with a capacity individually exceeding 500 L)

- Division 2.3: Toxic Gases

- Division 4.2: Spontaneously Combustible Substances

- Division 5.1: Oxidising substances

- Division 5.2: Organic Peroxides
- Class 6: Toxic or Infectious Substances
(where the flammable liquid is nitromethane)
- Class 7: Radioactive materials unless specifically exempted

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No.: 1307

Proper Shipping Name: XYLENES

DG Class: 3

Packaging Group: III

EMS No.: F-E, S-D

Special provisions: 223

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 1307

Proper Shipping Name: Xylenes

Class: 3

Packing Group: III

Packaging Instructions (passenger & cargo): 355

Packaging Instructions (cargo only): 366

Hazard Label: Flammable liquid

Special provisions: A3

ADG U.N. Number

1307

ADG Proper Shipping Name

XYLENES

ADG Transport Hazard Class

3

ADG Packing Group

III

Hazchem Code

3Y

IERG Number

16

Special Precautions for User

Not available

IMDG Marine pollutant

No

Transport in Bulk

Not available

Section 15 - Regulatory Information

Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

S6

Australia (AICS/AIIC)

All components of this product are listed on the Inventory or exempted.

Montreal Protocol

Not listed

Stockholm Convention

Not listed

Rotterdam Convention

Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL)

Not available

Agricultural and Veterinary Chemicals Act 1994

Not available

Basel Convention

Not available

Section 16 - Any Other Relevant Information

Date of Preparation

SDS Reviewed: March 2022 Supersedes: March 2017

Version Number

3.0

Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

International Air Transport Association (IATA) Dangerous Goods Regulations.

International Maritime Dangerous Goods (IMDG) Code.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

END OF SDS

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