

# SAFETY DATA SHEET

**VIVASOL X3B**

Infosafe No.: IA1W9

ISSUED Date : 28/03/2017

ISSUED by: VIVA ENERGY AUSTRALIA PTY LTD  
(FORMERLY: SHELL COMPANY OF AUSTRALIA LTD)

## 1. IDENTIFICATION

**GHS Product Identifier**

VIVASOL X3B

**Product Code**

Q5633

**Company Name**

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

**Address**

Level 16, 720 Bourke Street Docklands

VIC 3008 AUSTRALIA

**Telephone/Fax Number**

Tel: +61 (0)3 8823 4444

Fax: +61 (0)3 8823 4800

**Emergency phone number**

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

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

Industrial solvent

## 2. HAZARD 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)

Aspiration Hazard: Category 1

Flammable Liquids: Category 2

Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2

Skin Corrosion/Irritation: Category 2

STOT Repeated Exposure: Category 2

STOT Single Exposure: Category 3 (narcotic)

STOT Single Exposure: Category 3 (respiratory tract irritation)

Toxic to Reproduction: Category 1A

**Signal Word (s)**

DANGER

**Hazard Statement (s)**

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

**Pictogram (s)**

Flame, Exclamation mark, Health hazard, Environment



#### Precautionary statement – Prevention

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
 P233 Keep container tightly closed.  
 P240 Ground/bond container and receiving equipment.  
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P264 Wash contaminated 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.

#### Precautionary statement – Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P314 Get medical advice/attention if you feel unwell.  
 P331 Do NOT induce vomiting.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P362 Take off contaminated clothing and wash before reuse.  
 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) for extinction.  
 P391 Collect spillage.

#### Precautionary statement – Storage

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..

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Name	CAS	Proportion
Solvent naphtha, petroleum, light aromatic	64742- 95- 6	100 %

#### Preparation Description

Contains 30-50% toluene (CAS 108-88-3).

The classification as a carcinogen or mutagen does not apply since the substance contains less than 0.1% w/w benzene (CAS 71-43-2).

### 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 contact**

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. If symptoms develop and/or persist 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.

## 5. FIRE-FIGHTING MEASURES

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**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**

Highly 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**

3YE

**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.

## 6. ACCIDENTAL RELEASE MEASURES

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**Emergency Procedures**

Wear appropriate personal protective equipment and clothing to prevent exposure (see Section 8). 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.

## 7. HANDLING AND STORAGE

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**Precautions for Safe Handling**

Wear appropriate personal protective equipment and clothing to prevent exposure. Handle and use the material in a well-ventilated area, away from sparks, flames and other ignition sources. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Work from suitable, labelled, fire-resistant containers. Open containers carefully as they may be under pressure. Keep containers tightly closed. Flameproof equipment is necessary in areas where the product is being used. Take precautionary measures against static discharges. Earth or bond all equipment. 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.

It is recommended that pregnant or breastfeeding women should not handle this product unless adequate exposure protection can be assured at all times. Female personnel planning pregnancy should be made aware of the potential risks.

**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.

#### **Storage Temperatures**

Ambient.

#### **Recommended Materials**

For containers, or container linings use mild steel, stainless steel. For container paints, use epoxy paint, zinc silicate paint.

#### **Unsuitable Materials**

Avoid prolonged contact with natural, butyl or nitrile rubbers.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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#### **Occupational exposure limit values**

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

Toluene

TWA: 50 ppm, 191 mg/m<sup>3</sup>

STEL: 150 ppm, 574 mg/m<sup>3</sup>

Notices: Sk

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.

'Sk' Notice: Absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

#### **Biological Limit Values**

Name: Toluene

Determinant: toluene in urine

Value: 0.03mg/l

Sampling time: end of shift.

Name: Toluene

Determinant: toluene in blood

Value: 0.02mg/l

Sampling time: prior to last shift of workweek

Name: Toluene

Determinant: o-Cresol in urine

Value: 0.3mg/g creatinine

Sampling time: end of shift.

Source: American Conference of Industrial Hygienists (ACGIH)

#### **Appropriate 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 60079.10.1:2009 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 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 devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

#### **Hand Protection**

Wear gloves of impervious material such as PVC or neoprene rubber gloves, nitrile rubber gloves. 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.

**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.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Properties	Description	Properties	Description
Form	Liquid	Appearance	Liquid
Colour	Colourless	Odour	Aromatic
Decomposition Temperature	Not available	Melting Point	Not available
Freezing Point	Not available	Boiling Point	95 - 138°C (typical)
Solubility in Water	Negligible	Solubility in Organic Solvents	Not available
pH	Not available	Vapour Pressure	Not available
Vapour Density (Air=1)	Not available	Evaporation Rate	Not available
Odour Threshold	Not available	Viscosity	Not available
Partition Coefficient: n-octanol/water	Not available	Density	0.780 - 0.810 kg/l (ASTM D-4052) (typical)
Flash Point	-1 °C (Abel Closed Cup)	Flammability	Highly flammable
Auto-Ignition Temperature	Not available	Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available		

**10. STABILITY AND REACTIVITY**

**Reactivity**

Reacts with incompatible materials.

**Chemical Stability**

Stable under normal conditions of storage and handling.

**Conditions to Avoid**

Avoid heat, sparks, open flames and other ignition sources.

**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.

**Possibility of hazardous reactions**

Not available

**11. TOXICOLOGICAL INFORMATION**

**Toxicology Information**

Toxicity data for material given below.

**Acute Toxicity - Oral**

LD50 (Rat): >2000 mg/kg

**Acute Toxicity - Inhalation**

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

**Acute Toxicity - Dermal**

LD50 (Rat): > 2000 mg/kg

**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**

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

Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea and vomiting. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

**Skin**

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**

May be irritating to eyes. The symptoms may include redness, itching and tearing.

**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.

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

**Reproductive Toxicity**

May damage fertility or the unborn child. Classified as a Known or presumed human reproductive or developmental toxicant.

**STOT-single exposure**

May cause respiratory irritation. May cause drowsiness or dizziness.

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

**Aspiration Hazard**

May be fatal if swallowed and enters airways.

**Other Information****Repeated Dose Toxicity**

Central nervous system: repeated exposure affects the nervous system. Effects were seen at high doses only.

Kidney: caused kidney effects in male rats which are not considered relevant to humans

Auditory system: prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. (Toluene)

Visual system: may cause decreased color perception. These subtle changes have not been found to lead to functional colour vision deficits. (Toluene)

Respiratory system: repeated exposure affects the respiratory system. Effects were seen at high doses only. (Toluene)

## 12. ECOLOGICAL INFORMATION

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**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

Expected to be readily biodegradable.

Oxidises rapidly by photo-chemical reactions in air.

**Mobility**

Floats on water.

Adsorbs to soil and has low mobility.

**Bioaccumulative Potential**

Has the potential to bioaccumulate.

**Other Adverse Effects**

Not available

**Environmental Protection**

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

**Acute Toxicity - Fish**

Expected to be toxic:  $1 < LC/EC/IC50 \leq 10 \text{ mg/l}$

**Acute Toxicity - Algae**

Expected to be toxic:  $1 < LC/EC/IC50 \leq 10 \text{ mg/l}$

**Acute Toxicity - Other Organisms**

Aquatic Invertebrates : Expected to be toxic:  $1 < LC/EC/IC50 \leq 10 \text{ mg/l}$

Microorganisms : Expected to have low toxicity:  $LC/EC/IC50 > 100 \text{ mg/l}$

### 13. DISPOSAL CONSIDERATIONS

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#### 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.

### 14. TRANSPORT INFORMATION

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#### 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 Agents and 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.

Class/Division: 3

UN No: 1268

Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S. (SOLVENT NAPHTHA, PETROLEUM, LIGHT AROMATIC) (MARINE POLLUTANT)

Packing Group: II

EMS : F-E, S-E

Special Provisions: -

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.

Class/Division: 3

UN No: 1268

Proper Shipping Name: Petroleum distillates, n.o.s. (Solvent naphtha, petroleum, light aromatic)

Packing Group: II

Packaging Instructions (passenger & cargo): 353

Packaging Instructions (cargo only): 364

Hazard Label: Flammable Liquid

Special Provisions: A3

#### U.N. Number

1268

#### UN proper shipping name

PETROLEUM DISTILLATES, N.O.S.(SOLVENT NAPHTHA, PETROLEUM, LIGHT AROMATIC)

#### Transport hazard class(es)

3

#### Packing Group

II

#### Hazchem Code

3YE

**IERG Number**

14

**IMDG Marine pollutant**

Yes

**Transport in Bulk**

Not available

**Special Precautions for User**

Not available

**15. REGULATORY INFORMATION**

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**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**

S5

**Australia (AICS)**

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

**16. OTHER INFORMATION**

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**Date of preparation or last revision of SDS**

SDS Reviewed: March 2017

Supersedes: February 2016

**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.

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

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

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**END OF SDS**

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