

## Hazardous Substance, Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Vortex 98**

Synonyms:  
Vortex 98

Mancode  
-

Recommended use: Fuel

Supplier: Caltex Australia Petroleum Pty Ltd  
ABN: 17 000 032 128  
Street Address: 2 Market Street  
Sydney NSW 2000  
Australia  
Telephone: +612 9250-5000  
Facsimile: +612 9250-5742

Emergency telephone number: **1800 033 111**

### 2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word  
Danger

#### Hazard Classification

Flammable Liquids – Category 2  
Skin Corrosion/Irritation – Category 2  
Germ Cell Mutagenicity – Category 1B  
Carcinogenicity – Category 1B  
Specific Target Organ Toxicity (Single Exposure) – Category 3  
Aspiration Hazard – Category 1  
Chronic Hazard to the Aquatic Environment – Category 2

#### Hazard Statement(s)

H225 Highly flammable liquid and vapour  
H304 May be fatal if swallowed and enters airways  
H315 Causes skin irritation  
H336 May cause drowsiness or dizziness  
H340 May cause genetic defects  
H350 May cause cancer  
H411 Toxic to aquatic life with long lasting effects

#### Prevention Precautionary Statement(s)

P102 Keep out of reach of children  
P103 Read label before use  
P201 Obtain special instructions before use



- P202 Do not handle until all safety precautions have been read and understood
- P210 Keep away from all sources of ignition - No smoking
- P233 Keep container tightly closed
- P240 Ground/bond container and receiving equipment
- P241 Use explosion-proof electrical, ventilating, lighting and all other equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge
- P261 Avoid breathing dust, fume, gas, mist, vapours or spray
- P264 Wash hands, face and all exposed skin thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective clothing, gloves, eye/face protection and suitable respirator

**Response Precautionary Statement(s)**

- P101 If medical advice is needed, have product container or label at hand
- P312 Call a POISON CENTER or doctor/physician if you feel unwell
- P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P331 Do NOT induce vomiting
- P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P332+313 If skin irritation occurs: Get medical advice/attention
- P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P362 Take off contaminated clothing and wash before reuse

**Storage Precautionary Statement(s)**

- P405 Store locked up
- P403+235 Store in a well ventilated place. Keep cool

**Disposal Precautionary Statement(s)**

- P501 Dispose of contents/container in accordance with local, regional, national and international regulations

**Poisons Schedule (Aust):** Not applicable

**DANGEROUS GOODS CLASSIFICATION**

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**Class:** 3 Flammable Liquid

<b>3. COMPOSITION INFORMATION</b>
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CHEMICAL ENTITY	CAS NO.	PROPORTION
Gasoline, natural	8006-61-9	90-100%
Benzene	71-43-2	0.1-1%
Ingredients determined to be non-hazardous	-	Balance
		100%

<b>4. FIRST AID MEASURES</b>
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If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

**Skin contact:** For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Get to a doctor or hospital quickly.

**PPE for First Aiders:** Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists, wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**Notes to physician:** Treat symptomatically. Effects may be delayed. Delayed pulmonary oedema may result.

## 5. FIRE-FIGHTING MEASURES

**Hazchem Code:** 3YE

**Suitable extinguishing media:** If material is involved in a fire use alcohol resistant foam, standard foam or dry agent (carbon dioxide, dry chemical powder).

**Specific hazards:** Flammable liquid. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

**Fire fighting further advice:** Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

## LARGE SPILLS

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Prevent further leakage or spillage if safe to do so. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

**Dangerous Goods – Initial Emergency Response Guide No: 14**

## 7. HANDLING AND STORAGE

**Handling:** Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Dangerous Good Class 3 Flammable Liquid as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### National occupational exposure limits:

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>		
Gasoline, natural	-	900	-	-	-	-
Benzene	1	-	3.2	-	-	-

As published by the Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

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.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the following ingredients in this material requires Health Surveillance:

Benzene.

For detailed information see "Guidelines for Health Surveillance (Safe Work Australia)"

**Engineering measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, RESPIRATOR.

Wear overalls, safety glasses and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid skin and eye contact and inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form / Colour / Odour:** Yellow liquid with characteristic odour

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (15 °C):</b>	0.76
<b>Relative Vapour Density (air=1):</b>	3.5
<b>Vapour Pressure (37.8 °C):</b>	80 kPa @ 40 °C 67 kPa max @ 37.8 °C in Adelaide, Brisbane and Perth 62 kPa max @ 37.8 °C in Sydney and Melbourne
<b>Flash Point (°C):</b>	-40 (Closed Cup)
<b>Flammability Limits (%):</b>	LEL – 1.4; UEL – 7.6
<b>Autoignition Temperature (°C):</b>	370
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	30-205
<b>pH:</b>	N App
<b>Viscosity:</b>	N Av
<b>Total VOC (g/Litre):</b>	N Av

(Typical values only - consult specification sheet)  
N Av = Not available      N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Reactivity:** No reactivity hazards are known for the material.

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Hazardous reactions:** No known hazardous reactions.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

### Acute Effects

**Inhalation:** Material may be an irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

**Skin contact:** Contact with skin will result in irritation.

**Ingestion:** Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. May cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause bronchopneumonia or pulmonary oedema.

**Eye contact:** May be an eye irritant.

### Acute toxicity

**Inhalation:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

**Skin contact:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Ingestion:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Corrosion/Irritancy:** Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as a Category 2 Hazard (irritant to skin).

**Sensitisation:** Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a respiratory sensitiser.

**Aspiration hazard:** This material has been classified as a Category 1 Hazard.

**Specific target organ toxicity (single exposure):** This material has been classified as a Category 3 Hazard. Exposure via inhalation may result in depression of the central nervous system.

### Chronic Toxicity

**Mutagenicity:** This material has been classified as a Category 1B Hazard.

**Carcinogenicity:** This material has been classified as a Category 1B Hazard.

**Reproductive toxicity (including via lactation):** This material has been classified as non-hazardous.

**Specific target organ toxicity (repeat exposure):** This material has been classified as non-hazardous.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L

**Long-term aquatic hazard:** This material has been classified as a Category Chronic 2 Hazard. Acute toxicity estimate (based on ingredients): 1 - 10 mg/L

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

<b>UN No:</b>	1203
<b>Dangerous Goods Class:</b>	3
<b>Packing Group:</b>	II
<b>Hazchem Code:</b>	3YE
<b>Emergency Response Guide No:</b>	14

**Proper Shipping Name:** PETROL

**Segregation Dangerous Goods:** Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2) or radioactive substances (Class 7), however exemptions may apply.

### MARINE TRANSPORT

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



**UN No:** 1203  
**Dangerous Goods Class:** 3  
**Packing Group:** II

**Proper Shipping Name:** PETROL

## AIR TRANSPORT

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

**UN No:** 1203  
**Dangerous Goods Class:** 3  
**Packing Group:** II

**Proper Shipping Name:** PETROL

## 15. REGULATORY INFORMATION

**This material is not subject to the following international agreements:**

Montreal Protocol (Ozone depleting substances)  
The Stockholm Convention (Persistent Organic Pollutants)  
The Rotterdam Convention (Prior Informed Consent)  
Basel Convention (Hazardous Waste)  
International Convention for the Prevention of Pollution from Ships (MARPOL)

**This material is subject to the following international agreements:**

Basel Convention (Hazardous Waste)

- Wastes from the production, formulation and use of organic solvents
- Organic solvents excluding halogenated solvents

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

- Annex II - Noxious Liquid Substances carried in Bulk
- Annex III - Harmful Substances carried in Packaged Form

**This material/constituent(s) is covered by the following requirements:**

- All the constituents of this material are listed on the *Australian Inventory of Chemical Substances (AICS)*.

## 16. OTHER INFORMATION

### Literary reference

Reason(s) For Issue: Revised

Material Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

CHEMICAL EMERGENCIES: 1 800 033 111  
TECHNICAL ADVICE, RING LUBELINK: 1300 364 169



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PLEASE NOTE that although every care has been taken in compiling the above information, it is solely reliant upon data available to us at the date hereof. We believe the data to be correct, however for the reason just stated we are not in a position to warrant its accuracy. With that in mind and given that the full range of possibilities and conditions under which the information may be applied simply cannot be anticipated, YOU ARE CAUTIONED to make your own determinations as to the veracity and the suitability of the information to the particular circumstances that apply, or may apply, to you from time to time. Consistent with that approach it is recommended that where you have a particular purpose which would necessitate a reliance on information of the nature herein you obtain your own independent expert advice particularly structured to the relevant purpose. If this material is printed, circulated, distributed or copied in any manner, it is not to be modified without prior written permission, and further, it is to include the wording of the above disclaimer.

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