Material Safety Data Sheet

1 . Identification of the material and supplier

Product name	**BP Racing 100**
SDS no.	0000002820
Product use	High performance fuel for motor and water sport spark ignition engines where leaded fuels are approved for use. NOT for aviation use.
Supplier	BP Australia Pty Ltd (ABN 53 004 085 616) 717 Bourke Street Docklands VIC 3008 Australia Tel: +61 (03) 9268 4111 Fax: +61 (03) 9268 3321
EMERGENCY TELEPHONE NUMBER	1800 638 556
Product code	0000002820

2 . Hazards identification

Statement of hazardous/dangerous nature	HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
Risk phrases	R12- Extremely flammable. R45- May cause cancer. R46- May cause heritable genetic damage. R61- May cause harm to the unborn child. R23/24/25- Also toxic by inhalation, in contact with skin and if swallowed. R65- Also harmful: may cause lung damage if swallowed. R38- Irritating to skin. R33- Danger of cumulative effects. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases	S53- Avoid exposure - obtain special instructions before use. S1/2- Keep locked up and out of the reach of children. S23- Do not breathe fumes/vapour/spray S29- Do not empty into drains. S36/37- Wear suitable protective clothing and gloves. S43- In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray. Never use water. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61- Avoid release to the environment. Refer to special instructions/safety data sheet. S63- In case of accident by inhalation: remove casualty to fresh air and keep at rest.

3 . Composition/information on ingredients

A complex mixture of volatile hydrocarbons containing paraffins, naphthenes, olefins and aromatics with carbon numbers predominantly between C4 and C12. May also contain small quantities of proprietary performance additives. Contains lead. May be dyed

Ingredient name	CAS no.	%
Gasoline	86290-81-5	80 - 100
Benzene	71-43-2	0.1 - 5
Toluene	108-88-3	10 - 20
xylene	1330-20-7	5 - 10
Ethylbenzene	100-41-4	5 - 10
n-hexane	110-54-3	0 - 1
1,2-dibromoethane	106-93-4	0.03 - 0.9
Tetraethyl lead (Lead alkyls)	78-00-2	0.1 - 0.2 Lead and compounds (as Pb)

4 . First-aid measures

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Skin contact	Immediately wash exposed skin with soap and water. Drench contaminated clothing with water before removing. This is necessary to avoid the risk of sparks from static electricity that could ignite contaminated clothing. Contaminated clothing is a fire hazard. Contaminated leather, particularly footwear, must be discarded. Remove contaminated clothing and shoes. Wash contaminated skin with soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation occurs.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed. Can enter lungs and cause damage. Get medical attention immediately.
Advice to doctor	Treatment should in general be symptomatic and directed to relieving any effects. Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac dysrhythmias.

5 . Fire-fighting measures

Extinguishing media	
Suitable	In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.
Not suitable	Do not use water jet.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide other hazardous substances.
Unusual fire/explosion hazards	Flammable liquid and vapour. Vapours can form explosive mixtures with air. Vapours are heavier than air and can spread along the ground or float on water surfaces to remote ignition sources. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Special fire-fighting procedures	Do not fight fire when it reaches the material. Withdraw from fire and let it burn. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. First move people out of line-of-sight of the scene and away from windows.
Protection of fire-fighters	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Hazchem code	3YE

6 . Accidental release measures

Personal precautions	Immediately contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions	Storage tanks must be positioned within a bunded area. Avoid contact of spilt material with soil and prevent runoff entering surface waterways. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Large spill	Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
Small spill	Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

Handling

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Never siphon by mouth. If ingested, do not induce vomiting. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only with adequate ventilation. Avoid breathing vapours, spray or mists. Keep away from heat, sparks and flame. When using do not eat, drink or smoke.
To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
Avoid contact of spilt material and runoff with soil and surface waterways.

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). Store and use only in equipment/containers designed for use with this product. Do not remove warning labels from containers.
Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks.
Entry to any tanks or other confined space requires a full risk assessment and appropriate control measures to be put in place in conformance with appropriate regulations and industry practice on confined space entry. Do not enter storage tanks. If entry to vessels is necessary, follow permit to work procedures for entering a confined space that has contained leaded product (tetraethyl lead). The tank shall have been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapour concentrations of less than 1% of the lower flammability limit and an oxygen concentration of at least 20% volume. Always have sufficient people standing by outside the tank with appropriate breathing apparatus and equipment to effect a quick rescue.
When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure. If product comes into contact with hot surfaces, or leaks occur from pressurised fuel pipes, the vapour or mists generated will create a flammability or explosion hazard.
Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.

Additional information-Storage

This product must be handled in compliance with Australian Standard: The storage and handling of flammable and combustible liquids [Standard 1940-2004 as amended and adapted].

8 . Exposure controls/personal protection

Ingredient name	Occupational exposure limits
Gasoline	**ACGIH TLV (United States).** TWA: 300 ppm 8 hour(s). Issued/Revised: 5/1996 TWA: 890 mg/m³ 8 hour(s). Issued/Revised: 5/1996 STEL: 500 ppm 15 minute(s). Issued/Revised: 5/1996 STEL: 1480 mg/m³ 15 minute(s). Issued/Revised: 5/1996
Benzene	**Safe Work Australia (Australia).** TWA: 3.2 mg/m³ 8 hour(s). Issued/Revised: 4/2003 TWA: 1 ppm 8 hour(s). Issued/Revised: 4/2003
Toluene	**Safe Work Australia (Australia). Absorbed through skin.** STEL: 574 mg/m³ 15 minute(s). Issued/Revised: 8/2005 STEL: 150 ppm 15 minute(s). Issued/Revised: 8/2005 TWA: 191 mg/m³ 8 hour(s). Issued/Revised: 8/2005 TWA: 50 ppm 8 hour(s). Issued/Revised: 8/2005
xylene	**Safe Work Australia (Australia).** STEL: 655 mg/m³ 15 minute(s). Issued/Revised: 5/1995 STEL: 150 ppm 15 minute(s). Issued/Revised: 5/1995 TWA: 350 mg/m³ 8 hour(s). Issued/Revised: 5/1995 TWA: 80 ppm 8 hour(s). Issued/Revised: 5/1995
Ethylbenzene	**Safe Work Australia (Australia).** STEL: 543 mg/m³ 15 minute(s). Issued/Revised: 5/1995 STEL: 125 ppm 15 minute(s). Issued/Revised: 5/1995 TWA: 434 mg/m³ 8 hour(s). Issued/Revised: 5/1995 TWA: 100 ppm 8 hour(s). Issued/Revised: 5/1995
n-hexane	**Safe Work Australia (Australia).** TWA: 72 mg/m³ 8 hour(s). Issued/Revised: 11/2001 TWA: 20 ppm 8 hour(s). Issued/Revised: 11/2001
Tetraethyl lead (Lead alkyls)	**Safe Work Australia (Australia). Absorbed through skin.** TWA: 0.1 mg/m³, (as Pb) 8 hour(s). Issued/Revised: 5/1995

For information and guidance, the ACGIH values are included. For further information on these please consult your supplier.

Whilst specific OELs for certain components are included in this SDS, it should be noted that other components of the preparation will be present in any mist, vapour or dust produced. For this reason, the specific OELs may not be applicable to the product and are provided for guidance purposes.

Biological Limit Values	Lead in blood - Sampling time is not critical: 30 µg/100 ml (ACGIH) Note: Women of child bearing potential, whose blood Pb exceeds 10 µg/dl, are at risk of delivering a child with a blood Pb over the current Centers for Disease Control guideline of 10 µg/dl. If the blood Pb of such children remains elevated, they may be at increased risk of cognitive deficits. The blood Pb of these children should be closely monitored and appropriate steps should be taken to minimize the child's exposure to environmental lead. (CDC: Preventing Lead Poisoning in Young Children, October 1991; See ACGIH BEI® and TLV® Documentation for Lead). Mandelic acid in urine - End of shift at end of workweek: 1.5 g/g creatinine (ACGIH) Ethyl benzene in end-exhaled air (ACGIH) 2,5-Hexanedion in urine (without hydrolysis) - End of shift at end of workweek: 0.5 mg/L (ACGIH) Note: Metabolite is specific to n-hexane and methyl n-butyl ketone (ACGIH) o-Cresol in urine - End of shift: 0.3 mg/L (ACGIH) Toluene in blood - Prior to last shift of workweek: 0.02 mg/L (ACGIH) XYLENES: Methylhippuric acids in urine - End of shift: 1.5 g/g creatinine (ACGIH)
Exposure controls	
Occupational exposure controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible. The above information is provided to assist the customer in conducting its own assessment of risk to the health and safety of workers for the substance or preparation, and protection of the environment.
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protective equipment	
Respiratory protection	Use only with adequate ventilation. Avoid breathing of vapours, mists or spray. Select and use respirators in accordance with AS/NZS 1715/1716. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure level.
Skin and body	Avoid contact with skin and clothing. Wear clothing and footwear that cannot be penetrated by chemicals or oil. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.
Hand protection	Wear chemical resistant gloves. Protective gloves will deteriorate over time due to physical and chemical damage. Inspect and replace gloves on a regular basis.
Eye protection	Chemical splash goggles.

9 . Physical and chemical properties

Physical state	Liquid.
Colour	Green. or Blue.
Odour	Strong
Flash point	<-40 °C (Closed cup) Pensky-Martens.
Explosion limits	Lower: 1.4% Upper: 7.6%
Vapour pressure	38.896 to 49 kPa (292.5 to 368.48 mm Hg) at 37.8°C
Vapour density	3 to 4 [Air = 1]
Viscosity	Kinematic: <7 mm^2/s (<7 cSt) at 40°C
pH	Not available.
Boiling point / range	40 to 170°C (104 to 338°F)
Melting point / range	Not available.
Relative density/Specific gravity	Not available.
Density	710 kg/m^3 (0.71 g/cm^3) at 15°C
Solubility	Very slightly soluble in water

10 . Stability and reactivity

Stability	The product is stable.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Avoid excessive heat.
Incompatibility with various substances/Hazardous Reactions	Reactive or incompatible with the following materials: oxidising materials.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide other hazardous substances.

11 . Toxicological information

Effects and symptoms

Eyes

May cause eye irritation. Exposure to vapour, mist or fume may cause stinging, redness and watering of the eyes. Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Skin

Toxic if absorbed through skin. Contains lead. Causes skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. Contains material which may cause cancer. Contains material which can cause birth defects.

Inhalation

Toxic if inhaled. Contains lead. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs. Vapour, mist or fume may irritate the nose, mouth and respiratory tract. Inhalation of vapour, mist or fume may cause a sore throat, coughing and shortness of breath. Vapours may cause drowsiness and dizziness. Contains material which may cause cancer. Contains material which can cause birth defects.

Ingestion

Toxic if swallowed. Contains lead. If swallowed, may irritate the mouth, throat and digestive system. If swallowed, may cause abdominal pain, stomach cramps, nausea, vomiting and diarrhoea. Aspiration of this product into the lungs may cause chemical pneumonia and can be fatal. Aspiration into the lungs can occur while vomiting after ingestion of this product. Do not siphon by mouth.

Chronic toxicity

Other chronic toxicity data

Lead is a cumulative poison. It can cause anaemia, central nervous system effects, gastro-intestinal symptoms and kidney damage.

Excess exposure to vapors may produce headaches, dizziness, nausea, drowsiness, irritation of eyes, nose and throat and central nervous system depression. Aspiration of this material into the lungs can cause chemical pneumonia and can be fatal. Aspiration into the lungs can occur while vomiting after ingestion of this product. Inhalation of unleaded gasoline vapors did not produce birth defects in laboratory animals. Ingestion of this material can cause gastrointestinal irritation and diarrhea.

In a long-term inhalation study of whole unleaded gasoline vapors, exposure-related kidney damage and kidney tumors were observed in male rats. Similar kidney effects were not seen in female rats or in mice. At the highest exposure level (2056 ppm), female mice had an increased incidence of liver tumors. Results from subsequent scientific studies have shown that a broad variety of chemicals cause these kidney effects only in the male rat. Further studies have discovered the means by which the physiology of the male rat uniquely predispose it to these effects. Consequently, the Risk Assessment Forum of the Environmental Protection Agency has recognized that these responses are not predictive of a human health hazard. The liver tumors that were increased in the high-dose female mice are likewise of questionable significance because of their high spontaneous occurrence even without chemical exposure and because the rate of their occurrence is accelerated by a broad spectrum of chemicals not commonly considered to be carcinogens (e.g., phenobarbital).
Thus, the significance of the mouse liver tumor response in terms of human health is questionable.

Gasoline is a complex mixture of hydrocarbons and contains benzene (typically no more than 2 volume%), toluene, and xylene. Chronic exposure to high levels of benzene has been shown to cause cancer (leukemia) in humans and other adverse blood effects (anemia). Benzene is considered a human carcinogen by IARC, NTP and OSHA. Over exposure to xylene and toluene can cause irritation to the upper respiratory tract, headache and narcosis. Some liver damage and lung inflammation were seen in chronic studies on xylene in guinea pigs but not in rats.

Solvent "sniffing" (abuse) or intentional overexposure to vapors can produce serious central nervous system effects, including unconsciousness, and possibly death.

Carcinogenic effects

Exposure to benzene may result in effects to the hematopoietic system causing blood disorders including anaemia and leukaemia.
Benzene is classified by EEC as a category 1 carcinogen - substances known to be carcinogenic to man.
IARC assessment: benzene - carcinogenic to humans (Group 1)
1,2-dibromoethane - EU Category 2: Regarded as carcinogenic to humans, based on animal studies.
Classified 2A (Probable for human.) by IARC: [1,2-dibromoethane]
Classified 2B (Possible for humans.) by IARC: [Ethylbenzene]

Mutagenic effects

May cause heritable genetic damage.

Other information	Contains material which can cause birth defects. (Lead alkyls)

12 . Ecological information

Ecotoxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Biodegradability	
Persistence/degradability	The biodegradability of this material has not been determined.
Mobility	Spillages may penetrate the soil causing ground water contamination.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

13 . Disposal considerations

Disposal considerations / Waste information	The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Special Precautions for Landfill or Incineration	No additional special precautions identified.

14 . Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG Classification	UN 1203	GASOLINE (LEADED)	3	II		**Hazchem code** 3YE **Remarks** Environmentally hazardous substance mark.
IMDG Classification	UN 1203	GASOLINE (LEADED). Marine pollutant (Tetraethyl lead (Lead alkyls))	3	II		**Emergency schedules (EmS)** F-E, S-E **Remarks** Marine pollutant
IATA/ICAO Classification	UN 1203	GASOLINE (LEADED)	3	II		**Remarks** Environmentally hazardous substance mark.

PG* : Packing group

Special precautions for user	No known special precautions required. See Section: "Handling and storage" for additional information.

15 . Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

7

Consumer products - This material is a scheduled poison and must be stored, maintained and used in accordance with the relevant regulations.
Industrial Products - Labelling requirements for SUSMP do not apply to a poison that is packed and sold solely for industrial, laboratory or manufacturing use. However, this product is labelled in accordance with NOSHC National Code of Practice for labelling of workplace substances.

Control of Scheduled Carcinogenic Substances

Ingredient name **Schedule**

No listed substances.

Other regulations

REACH Status	For the REACH status of this product please consult your company contact, as identified in Section 1.
United States inventory (TSCA 8b)	At least one component is not listed.
Australia inventory (AICS)	Contact supplier for regulatory information.
Canada inventory	At least one component is not listed.
China inventory (IECSC)	At least one component is not listed.
Japan inventory (ENCS)	At least one component is not listed.
Korea inventory (KECI)	At least one component is not listed.
Philippines inventory (PICCS)	At least one component is not listed.

16 . Other information

Key to abbreviations

AMP = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.
ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail
ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail
CAS Number = Chemical Abstracts Service Registry Number
HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.
ICAO = International Civil Aviation Organization.
IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.
IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.
IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.
NOHSC = National Occupational Health & Safety Commission, Australia
TWA = Time weighted average
STEL = Short term exposure limit
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

History

Date of issue	23/06/2011.
Date of previous issue	No previous validation.
Prepared by	Product Stewardship

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.