JFP / CHEETAH
MATERIAL SAFETY DATA SHEET
AVGAS

JUST FUEL PETROLEUM

SERIES RACING FUELS

High Performance Fuels for High Performance Cars.

JUST FUEL PETROLEUM

JFP MATERIAL SAFETY DATA SHEET
AVGAS LL100

High Performance Fuels for High Performance Cars.

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Avgas LL100
Other Names:	Aviation Fuel
Product Use:	High Performance Fuel for motor and water sport spark ignition engines where leaded fuels are approved for use. NOT for aviation use.
DG Class:	3
Supplier:	JFP, JUST FUEL PETROLEUM
Address:	2 Western Avenue, Sunshine, Victoria, 3020
Telephone:	03 9312 4788
Email Address:	mario@justfuel.com.au
Web Site:	www.justfuel.com.au
Facsimile:	03 9311 6026
Emergency Phone Number:	000 Fire Brigade and Police (available in Australia only)
Poisons Information Centre:	13 11 26 (available in Australia only)

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

SECTION 2: HAZARD IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: Classified as **Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.
AVGAS 100 is classified as **Dangerous** Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Risk Phrases	Safety Phrases
R11 – Highly flammable. R20/21//22 – Harmful by inhalation, in contact with skin and if swallowed. R33 – Danger of cumulative effects. R38 – Irritating to skin. R45 – May cause cancer R46 – May cause heritable genetic damage. R48/20/21/22 – Harmfil: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. R61 – May cause harm to unborn child. R63 – Possible risk of harm to unborn child. R65 – Harmful:May cause lung damage if swallowed. R66 – Repeated exposure may cause skin dryness and cracking.	S2 – Keep out of reach of children. S7/9 – Keep container tightly closed and in a well ventilated place. S16 – Keep away from sources of ignition. No smoking. S23 – Do not breathe gas/fumes/vapour/spray. S24/25 – Avoid contact with skin and eyes. S29 – Do not empty into drains. S33 – Take precautionary measures against static discharges. S36/37/39 – Wear suitable protective clothing/ gloves and eye/face protection. S45 – In case of accident or if you feel unwell seek medical advice immediately (show the label whenever possible). S53 – Avoid exposure – obtain special instructions before use. S62 – If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. S61 – Avoid release to the environment. Refer to special instructions / safety data sheet.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name:	CAS Number:	Proportion %:
distillates (petroleum), naphtha-raffinate pyrolyzate-derived, gasoline-blending Benzene Tetraethyl lead (Lead alkyls)	68425-29-6 71-43-2 78-00-2	90 - 100 0.1 - 5 0.05 - 0.15

SECTION 4: HEALTH HAZARD INFORMATION

FIRST AID

Eye Contact:	In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact:	Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin. In extreme situations of saturation with this product, drench with water, remove clothing as soon as possible and wash skin with soap and water. Seek medical advice if skin becomes red, swollen or painful. Note that contaminated clothing may be a fire hazard.
Inhalation:	If exposure to vapour, mists or fumes causes drowsiness, headache, blurred vision or irritation of the eyes, nose or throat, remove immediately to fresh air. Keep patient warm and at rest. If any symptoms persist obtain medical advice. Unconscious casualties must be placed in the recovery position. Monitor breathing and pulse rate and if breathing has failed, or is deemed inadequate, respiration must be assisted, preferably by the mouth to mouth method. Administer external cardiac massage if necessary. Seek 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. Obtain medical attention immediately.

SECTION 5: TOXICOLOGICAL INFORMATION

Acute toxicity:	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs. Likely to cause skin irritation. Likely to result in chemical burns following prolonged wetting of the skin. (eg. after a road traffic accident). Harmful in contact with skin. Contains lead. Aspiration hazard if swallowed- can enter lungs and cause damage. Harmful if swallowed. Contains lead. Harmful by inhalation. Contains lead. Likely to be irritating to the respiratory tract if high concentrations of mists or vapour are inhaled. May cause nausea, dizziness, headaches and drowsiness if high concentrations of vapour are inhaled, Solvent "sniffing" (abuse) or intentional overexposure to vapours can produce serious central nervous system effects, including unconsciousness, and possibly death.
Other Acute toxicity data:	Lead is a cumulative poison. It can cause anaemia, central nervous system effects, gastro-intestinal symptoms and kidney damage.

CHRONIC TOXICITY

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 know to be carcinogenic to man. IARC assessment: benzene - carcinogenic to humans (Group 1)
Mutagenic Effects:	Contains material which may cause heritable genetic effects. Benzene.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedure:	Immediately contact emergency personnel. As this product has a very low flash point any spillage or leak is a severe fire and/or explosion hazard. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures"). Do not touch or walk through spilled material. Ensure good ventilation.
Methods and Materials for Containment and Clean-up:	If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.
Personal protection in case of a large spill:	Chemical splash goggles. Chemical-resistant protective suit. Boots. Chemical resistant gloves. Vapour respirator or a self-contained breathing apparatus. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. CAUTION: The protection provided by air-purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or if concentrations exceed the protection limits of air-purifying respirator.

SECTION 7: HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Keep away from heat, sparks and flame. 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 spilled material and runoff with soil and surface waterways. Wash thoroughly after handling. Never siphon by mouth.
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. Do not enter storage tanks without breathing apparatus unless the tank has 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. 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. 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. Electrical equipment should not be used unless it is intrinsically safe (i.e. will not produce sparks). Explosive air/vapour mixtures may form at ambient temperature. 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. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers.
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].

SECTION 8: FIRE FIGHTING MEASURES

Extinguishing media:

Suitable:	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
Not Suitable:	Do not use water jet.

Hazards from combustion products:	These products are carbon oxides (CO, CO2) (carbon monoxide, carbon dioxide) and metal oxide/oxides of lead.
Unusual fire/explosion Hazards:	Extremely flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas, 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 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 self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.
Hazchem code	3 [Y] E

SECTION 9: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient Name	Occupational exposure limits
Benzene	**NOHSC (Australia, 8/2005).** TWA: 3.2 mg/m3 8 hour(s). TWA: 1 ppm 8 hour(s).
Tretraethyl lead (Lead alkysl)	**NOHSC (Australia, 8/2005). Skin** TWA: 0.1 mg/m3, (as Pb) 8 hour(s).

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:	No biological limit allocated.
Control Measures:	Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. 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.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory System:	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 (Type P1) filters. Filter capacity and respirator type depends on exposure level.
Skin and Body:	Do not get on skin or clothing. Wear clothing and footwear that cannot be penetrated by chemicals or oil. Wear face shield.
Hands:	Wear gloves that cannot be penetrated by chemicals or oil.
Eyes:	Wear chemical goggles and a full face shield

SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Green or Blue.
Odour:	Strong
pH:	Not available
Explosion Limits:	Lower: 1.4 % Upper: 7.6 %
Flash point:	<-40 °C (Closed cup) Pensky-Martens.
Vapour Pressure:	37.899 to 48.87 kPa (285 to 367.5mm Hg) at 38°C
Vapour Density:	Not available
Density:	700 kg/m3 (0.7 g/cm3) at 15°C
Boiling Point/range (°C):	40 to 170°C (104 to 338°F)
Melting Point (°C):	Not available.
Solubility in water:	Very slightly soluble in water.
Relative density /Specific Gravity (H_2O = 1):	Not available.

SECTION 11: STABILITY AND REACTIVITY

Stability:	This product is stable
Conditions to avoid:	Heat, sparks, flame and build - up of static electricity/ all possible sources of ignition.
Incompatibility with various substances / Hazardous reactions	Reactive and incompatible with the following materials: oxidizing materials.
Hazardous Polymerization:	Will not occur.
Hazardous Decomposition Products:	None

SECTION 12: ECOLOGICAL INFORMATION

Eco-toxicity:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistence and 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.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Consideration / Waste information	Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations. Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. When cleaning storage tanks, sludges which may be contaminated with lead must be disposed of via a licensed waste disposal contractor, in accordance with local regulations.
Special Precautions for Landfill or Incineration	No additional special precautions identified.

SECTION 14: TRANSPORT INFORMATION

INTERNATIONAL TRANSPORT REGULATIONS

Regulation	UN number	Proper Shipping name	Class	Subsidiary class	Packing group:	Label	Additional Information
ADG Classification:	UN1203	GASOLENE (LEADED)	3	Not determined.	II		Hazchem code: 3 [Y] E Initial emergency response guide: 14 Emergency Procedure Guide:3.1.001
IMDG Classification:	UN1203	GASOLENE (LEADED) (Tetraethyl lead)	3	Not determined.	II		**Marine pollutant** Marine pollutant (P)
IATA Classification:	UN1203	GASOLENE (LEADED)	3	Not determined.	II		Not determined.

SECTION 15: REGULATORY INFORMATION

Standard for the Uniform Scheduling of Drugs and Poisons	Not regulated.

CONTROL OF SCHEDULED CARCINOGENIC SUBSTANCES

Ingredient name:	No listed substance

OTHER CLASSIFICATION INFORMATION

Other Regulations Inventories	Schedule
Australia (AICS):	All components are listed or exempted.
United States (TSCA 8b):	All components are listed or exempted.
Europe:	All components are listed or exempted.
Canada:	All components are listed or exempted.
Japan (ENCS):	Not determined.
China (IECSC):	Not determined.
Korea (KECI):	All components are listed or exempted.
Phillipines (PICCS):	Not determined.

SECTION 16: OTHER INFORMATION

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.

For further information on this product, please contact:

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AUTHORISATION

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