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Section 1: Chemical Product and Company Identification

Product Name	:	ULP 95 Unleaded
Use	:	Fuel for spark ignition powered automotive application. NOT for aviation use.
Company Identification	:	4 Silicon Road, Mariann Industrial Park, Pinetown, 4147
Health Emergency Telephone	:	10111
Contact Info	:	info@jagpetroleum.co.za
JAG Website	:	www.jagpetroleum.com

Section 2: Composition and Information on Ingredients

Statement of Hazardous/dangerous nature	:	HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
Risk phrases	:	R12- Extremely flammable. R45- May cause cancer. R46- May cause heritable genetic damage. R63- Possible risk of harm to the unborn child. R65- Also harmful: may cause lung damage if swallowed. R38- Irritating to skin. R67- Vapours may cause drowsiness and dizziness. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases	:	S2- Keep out of the reach of children. S16- Keep away from sources of ignition - No smoking. S23- Do not breathe gas/fumes/vapour/spray. S24- Avoid contact with skin. S29- Do not empty into drains. S36/37- Wear suitable protective clothing and gloves. 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. S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 3: Hazards Identification

Ingredient name	CAS no.	%
Petrol	86290-81-5	>90
Contains:		
Benzene	71-43-2	<1
tert-butyl alcohol	75-65-0	<1
tert-butyl methyl ether	1634-04-4	<1
Polycyclic aromatic hydrocarbons (PAHs)	mixture	<1
diisopropyl ether	108-20-3	<1

Section 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	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. 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. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.
Inhalation	:	Get medical attention immediately. If inhaled, remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. 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.
Ingestion	:	Get medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Section 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 oxides (CO, CO ₂) (carbon monoxide, carbon dioxide).

Unusual fire/explosion	:	Extremely flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Special fire-fighting Procedures	:	Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Move containers from fire area if this can be done without risk. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is toxic to aquatic organisms. Use water spray to keep fire-exposed containers cool.
Protection of fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	:	3YE

Section 6: Accidental Release Measures

Personal precautions	:	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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions	:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. 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	:	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.
Small spill	:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water soluble. Alternatively, or if water-insoluble, absorb with an

inert dry 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.

Section 7: Handling and Storage

Handling	:	<p>Put on appropriate personal protective equipment. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not get in eyes or on skin or clothing. Do not swallow. Aspiration hazard Can enter lungs and cause damage. Never siphon by mouth. Avoid breathing vapour or mist. Avoid contact of spilt material and runoff with soil and surface waterways. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. Do not reuse container. Empty containers retain product residue and can be hazardous.</p>
Storage	:	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Additional information-
Storage :

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.

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: Exposure Controls/Personal Protection

Ingredient name
Gasoline

Occupational exposure limits
ACGIH TLV (United States, 5/2004).
STEL: 1480 mg/m³ 15 minute(s). Form: All forms
STEL: 500 ppm 15 minute(s). Form: All forms
TWA: 890 mg/m³ 8 hour(s). Form: All forms
TWA: 300 ppm 8 hour(s). Form: All forms
NOHSC (Australia, 8/2005).
TWA: 3.2 mg/m³ 8 hour(s).
TWA: 1 ppm 8 hour(s).

Benzene

tert-butyl methyl ether

NOHSC (Australia, 8/2005).
STEL: 275 mg/m³ 15 minute(s).
STEL: 75 ppm 15 minute(s).
TWA: 92 mg/m³ 8 hour(s).
TWA: 25 ppm 8 hour(s).
NOHSC (Australia, 1995).
STEL: 455 mg/m³ 15 minute(s).
STEL: 150 ppm 15 minute(s).
TWA: 303 mg/m³ 8 hour(s).
TWA: 100 ppm 8 hour(s).

2-Methylpropan-2-ol

Polycyclic aromatic hydrocarbons (PAHs)

diisopropyl ether

NOHSC (Australia).
TWA: 0.2 mg/m³ 8 hour(s).
NOHSC (Australia, 8/2005).
STEL: 1300 mg/m³ 15 minute(s).
STEL: 310 ppm 15 minute(s).
TWA: 1040 mg/m³ 8 hour(s).
TWA: 250 ppm 8 hour(s).

Biological Limit Values :

Benzene: S-Phenylmercapturic acid in urine - End of shift: 25 µg/g creatinine (ACGIH) t,t-Muconic acid in urine - End of shift: 500 µg/g creatinine (ACGIH)

Exposure controls
Occupational exposure :

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.

Ensure that eyewash station and safety shower is proximal to the workstation location. 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. Do not breathe vapour or mist. 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	:	Do not get on skin or clothing. Wear clothing and footwear that cannot be penetrated by chemicals or oil. Wear face shield.
Hand protection	:	Wear gloves that cannot be penetrated by chemicals or oil. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
Eye protection	:	Safety glasses with side shields

Section 9: Physical and Chemical Properties

Physical state	:	Liquid.
Colour	:	Light Yellow.
Odour	:	Gasoline [Strong]
Flash point	:	< -40 °C (Closed cup) Pensky-Martens.
Auto-ignition temperature	:	> 350°C (> 662°F)
Explosion limits	:	Lower: 1.4% Upper: 7.6%
Vapour pressure	:	29.92 to 99.734 kPa (225 to 750 mm Hg)
Vapour density	:	Not available.
Viscosity Kinematic	:	0.4 to 0.55 mm ² /s (0.4 to 0.55 cSt) at 40°C
pH	:	Not available.
Boiling point / range	:	30 to 210°C (86 to 410°F)
Melting point / range	:	Not available.
Relative density/Specific Gravity	:	Not available.
Density	:	740 to 760 kg/m ³ (0.74 to 0.76 g/cm ³)
Solubility	:	Not available.

Section 10: Stability and Reactivity Data

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 oxides (CO, CO ₂) (carbon monoxide, carbon dioxide).

Section 11: Toxicological Information

Effects and symptoms	:	
Eyes	:	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Skin	:	Likely to cause skin irritation. Likely to result in chemical burns following prolonged wetting of the skin.
Inhalation	:	Aspiration hazard if swallowed. Can enter lungs and cause damage.
Ingestion	:	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.
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 known 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 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.

Section 13: Disposable Considerations

Disposal considerations / Waste information or

The generation of waste should be avoided or minimised wherever possible. Empty containers

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 identified. Landfill or Incineration

No additional special precautions

Section 14: Transport Information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG Classification	UN1203	Gasoline or Motor Spirit (Gasoline)	3	II		Hazchem code 3YE
IMDG Classification	UN1203	Gasoline or Motor Spirit (Gasoline). Marine pollutant (Benzene)	3	II		Emergency schedules (EmS) F-E; S-E
IATA/ICAO Classification	UN1203	Gasoline or Motor Spirit (Gasoline)	3	II		

PG* : Packing group

Special precautions for user :

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

Section 15: Other Regulatory Information

Standard for the Uniform Scheduling of Medicines and Poisons
Not scheduled

Consumer products - This product is exempt per Appendix A of the SUSMP.

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

Benzene

Schedule

Schedule: 2. when used as a feedstock containing more than 50% of benzene by volume

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)	:	Not determined.
Australia inventory (AICS)	:	Contact local supplier or distributor.
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.

Section 16: Other Information

Key to abbreviations	:	<p>AMP = Acceptable Maximum Peak</p> <p>ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.</p> <p>ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail</p> <p>ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail</p> <p>CAS Number = Chemical Abstracts Service Registry Number</p> <p>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.</p> <p>ICAO = International Civil Aviation Organization.</p> <p>IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.</p> <p>IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.</p> <p>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.</p> <p>NOHSC = National Occupational Health & Safety</p>
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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.