SAFETY DATA SHEET

SECTION 1  PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name:  Unleaded Petrol Grades
Product Description:  Hydrocarbons and Additives
Product Code:  010066-85, 22004-85, 929141-85
Intended Use:  Fuel

<table>
<thead>
<tr>
<th>Trade Names</th>
<th>Trade Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTRA 95</td>
<td>EXTRA PREMIUM 95</td>
</tr>
<tr>
<td>PREMIUM 95</td>
<td>PREMIUM 95 KC</td>
</tr>
<tr>
<td>PREMIUM 98</td>
<td>PREMIUM 98 KC</td>
</tr>
<tr>
<td>PREMIUM 98 UNLEADED – ADDITISED</td>
<td>PREMIUM UNLEADED PETROL</td>
</tr>
<tr>
<td>PULP</td>
<td>SPECIAL ULP</td>
</tr>
<tr>
<td>SPECIAL ULP 91</td>
<td>SPECIAL UNLEADED</td>
</tr>
<tr>
<td>SUPREME+ 98</td>
<td>SUPREME+ PREMIUM 98</td>
</tr>
<tr>
<td>ULP</td>
<td>UNLEADED 91</td>
</tr>
<tr>
<td>UNLEADED 91 - ADDITISED</td>
<td>UNLEADED 91 KC</td>
</tr>
<tr>
<td>UNLEADED PETROL</td>
<td></td>
</tr>
</tbody>
</table>

COMPANY IDENTIFICATION

Supplier:  MOBIL OIL AUSTRALIA PTY LTD
A.B.N. 88 004 052 984
12 Riverside Quay
Southbank
Victoria 3006 Australia

24 Hour Environmental / Health Emergency  1-800-023-005
Telephone
Supplier General Contact  +613 8633 8444
MSDS Internet Address  www.msds.exxonmobil.com

SECTION 2  HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

GHS CLASSIFICATION:

- Flammable liquid: Category 1.
- Skin irritation: Category 2.
- Germ Cell Mutagen: Category 1B.
- Carcinogen: Category 1B.
- Reproductive toxicant (developmental): Category 2.
- Specific target organ toxicant (central nervous system): Category 3.
- Aspiration toxicant: Category 1.

GHS Label Elements:

Pictogram:
Signal Word: Danger

Hazard Statements:

Physical: H224: Extremely flammable liquid and vapor.

Precautionary Statements:

General: P101: If medical advice is needed, have product container or label at hand. P103: Read label before use.
Disposal: P501: Dispose of contents and container in accordance with local regulations.

Contains: GASOLINE

Other hazard information:

Physical / Chemical Hazards:

Material can accumulate static charges which may cause an ignition. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Small leaks of this material can result in groundwater contamination levels above taste and odor thresholds for ether oxygenates (methyl tertiary butyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether or diisopropyl ether).
Groundwater becomes unpalatable well below ether oxygenate concentrations that could affect human health.

Health Hazards:
High-pressure injection under skin may cause serious damage. May be irritating to the eyes, nose, throat, and lungs. Exposure to benzene is associated with cancer (acute myeloid leukaemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders (see Section 11).

Environmental Hazards:
Ether oxygenates are significantly more soluble than other components of gasoline like benzene, toluene, ethyl benzene and xylenes (BTEX) if released into groundwater. Ether oxygenates may also biodegrade more slowly, have the potential to move farther and faster in groundwater and have the potential to contaminate larger areas of groundwater than BTEX if released into groundwater. Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Reportable Hazardous Substance(s) or Complex Substance(s)

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS#</th>
<th>Concentration*</th>
<th>GHS Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GASOLINE</td>
<td>86290-81-5</td>
<td>&gt; 99 %</td>
<td>H224, H304, H336, H340(1B), H350(1B), H361(D), H315, H401, H411</td>
</tr>
</tbody>
</table>

Hazardous Constituent(s) Contained in Complex Substance(s) required for disclosure

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS#</th>
<th>Concentration*</th>
<th>GHS Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENZENE</td>
<td>71-43-2</td>
<td>&lt; 5%</td>
<td>H225, H303, H304, H340(1B), H350(1A), H315, H319(2A), H372, H401</td>
</tr>
<tr>
<td>CUMENE</td>
<td>98-82-8</td>
<td>&lt; 5%</td>
<td>H226, H304, H335, H351, H401, H411</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>&lt; 5%</td>
<td>H225, H332, H373, H401, H412</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>&lt; 3%</td>
<td>H225, H304, H336, H361(F), H315, H373, H401, H411</td>
</tr>
<tr>
<td>PROPYL BENZENE</td>
<td>103-65-1</td>
<td>&lt; 5%</td>
<td>H226, H304, H335, H401, H411</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>&lt; 30%</td>
<td>H225, H304, H336, H361(D), H315, H373, H401, H412</td>
</tr>
<tr>
<td>TRIMETHYL BENZENE</td>
<td>25551-13-7</td>
<td>&lt; 5%</td>
<td>H226, H315</td>
</tr>
<tr>
<td>XYLENES</td>
<td>1330-20-7</td>
<td>&lt; 10%</td>
<td>H226, H304, H312, H332, H335, H315, H320(2B), H373, H401</td>
</tr>
</tbody>
</table>
* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

NOTE: The concentration of the components shown above may vary substantially. In certain countries, benzene content may be limited to lower levels. Oxygenates such as tertiary-amyl-methyl ether, ethanol, di-isopropyl ether, and ethyl-tertiary-butyl ether may be present. Because of volatility considerations, gasoline vapor may have concentrations of components very different from those of liquid gasoline. The major components of gasoline vapor are: butane, isobutane, pentane, and isopentane. The reportable component percentages, shown in the composition/information on ingredients section, are based on API's evaluation of a typical gasoline mixture. Oxygenates may be present up to the maximum permitted by European Standard EN228. Other ingredients determined not to be hazardous up to 100%.

SECTION 4  FIRST AID MEASURES

INHALATION
Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

SKIN CONTACT
Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT
Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION
Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN
If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This light hydrocarbon material, or a component, may be associated with cardiac sensitisation following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

SECTION 5  FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING
Fire Fighting Instructions: Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop a leak. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed
surfaces and to protect personnel.

**Unusual Fire Hazards:** Extremely Flammable. Vapour is flammable and heavier than air. Vapour may travel across the ground and reach remote ignition sources, causing a flashback fire danger. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

**Hazardous Combustion Products:** Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

**FLAMMABILITY PROPERTIES**

- **Flash Point [Method]:** -40°C (-40°F) [ASTM D-56]
- **Flammable Limits (Approximate volume % in air):** LEL: 1.4    UEL: 7.6
- **Autoignition Temperature:** N/D

**Hazchem Code:** 3[Y]E

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### SECTION 6  ACCIDENTAL RELEASE MEASURES

**NOTIFICATION PROCEDURES**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**PROTECTIVE MEASURES**

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H2S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

**SPILL MANAGEMENT**

**Land Spill:** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapour, but may not prevent ignition in enclosed spaces.

**Water Spill:** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Do not confine in area of spill. Advise occupants and shipping in downwind areas of fire and explosion hazard and warn them to stay clear. Allow liquid to evaporate from the surface. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material;
however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken. This product contains ether oxygenates and it is important to respond quickly to any spills or leaks. Even a small release, if not quickly cleaned up, can contaminate large volumes of surface or groundwater. Personnel handling, transferring or dispensing this product should be trained to respond immediately to any spills or leaks to prevent contamination of groundwater.

ENVIRONMENTAL PRECAUTIONS
Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING
Avoid all personal contact. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapour may be evolved from heated or agitated material. Do not siphon by mouth. Use only with adequate ventilation. Do not use as a cleaning solvent or other non-motor fuel uses. For use as a motor fuel only. It is dangerous and/or unlawful to put petrol into unapproved containers. Do not fill container while it is in or on a vehicle. Static electricity may ignite vapour and cause fire. Place container on ground when filling and keep nozzle in contact with container. Do not use electronic devices (including but not limited to cellular phones, computers, calculators, pagers or other electronic devices etc) in or around any fuelling operation or storage area unless the devices are certified intrinsically safe by an approved national testing agency and to the safety standards required by national and/or local laws and regulations. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE
Consistent with regulatory control requirements, storage and handling equipment and systems should be capable of preventing soil and groundwater contamination by liquid spills and vapor emissions. Leak detection systems and programs are recommended. Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep away from incompatible materials. Storage containers should be earthed and bonded. Fixed storage containers, transfer containers and associated equipment should be earthed and bonded to prevent accumulation of static charge.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES
Exposure limits/standards (Note: Exposure limits are not additive)

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>Form</th>
<th>Limit/Standard</th>
<th>Note</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENZENE</td>
<td>TWA</td>
<td>3.2 mg/m3</td>
<td>1 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>BENZENE</td>
<td>STEL</td>
<td>1 ppm</td>
<td></td>
<td>ExxonMobil</td>
</tr>
<tr>
<td>BENZENE</td>
<td>TWA</td>
<td>0.5 ppm</td>
<td></td>
<td>ExxonMobil</td>
</tr>
<tr>
<td>CUMENE</td>
<td>STEL</td>
<td>375 mg/m3</td>
<td>75 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>CUMENE</td>
<td>TWA</td>
<td>125 mg/m3</td>
<td>25 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>CUMENE</td>
<td>TWA</td>
<td>50 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>STEL</td>
<td>543 mg/m3</td>
<td>125 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>TWA</td>
<td>434 mg/m3</td>
<td>100 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td>GASOLINE</td>
<td>STEL</td>
<td>200 ppm</td>
<td></td>
<td>ExxonMobil</td>
</tr>
<tr>
<td>GASOLINE</td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
<td>ExxonMobil</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>TWA</td>
<td>72 mg/m3</td>
<td>20 ppm</td>
<td>Australia OELs</td>
</tr>
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<td>n-Hexane</td>
<td>TWA</td>
<td>50 ppm</td>
<td>Skin</td>
<td>ACGIH</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>STEL</td>
<td>574 mg/m3</td>
<td>150 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>TWA</td>
<td>191 mg/m3</td>
<td>50 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td>TRIMETHYL BENZENE</td>
<td>TWA</td>
<td>123 mg/m3</td>
<td>25 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>TRIMETHYL BENZENE</td>
<td>TWA</td>
<td>25 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td>XYLENES</td>
<td>STEL</td>
<td>655 mg/m3</td>
<td>150 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>XYLENES</td>
<td>TWA</td>
<td>350 mg/m3</td>
<td>80 ppm</td>
<td>Australia OELs</td>
</tr>
<tr>
<td>XYLENES</td>
<td>STEL</td>
<td>150 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td>XYLENES</td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Biological limits

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>Specimen</th>
<th>Sampling Time</th>
<th>Limit</th>
<th>Determinant</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENZENE</td>
<td>Creatinine in urine</td>
<td>End of shift</td>
<td>25 ug/g</td>
<td>S-Phenylmercapturic acid</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
<tr>
<td>BENZENE</td>
<td>Creatinine in urine</td>
<td>End of shift</td>
<td>500 ug/g</td>
<td>t,t-Muconic acid</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>Creatinine in urine</td>
<td>End of shift</td>
<td>0.15 g/g</td>
<td>Sum of mandelic acid and phenylglyoxylic acid</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>Urine</td>
<td>End of shift at end of work wk</td>
<td>0.4 mg/l</td>
<td>2,5-Hexanedione, without hydrolysis</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>Blood</td>
<td>Prior to last shift of work wk</td>
<td>0.02 mg/l</td>
<td>Toluene</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>Creatinine in urine</td>
<td>End of shift</td>
<td>0.3 mg/g</td>
<td>o-Cresol, with hydrolysis</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>Urine</td>
<td>End of shift</td>
<td>0.03 mg/l</td>
<td>Toluene</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
<tr>
<td>XYLENES</td>
<td>Creatinine in urine</td>
<td>End of shift</td>
<td>1.5 g/g</td>
<td>Methylhippuric acids</td>
<td>ACGIH BELs (BEIs)</td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:
Use explosion-proof ventilation equipment to stay below exposure limits.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:
  - Type AX filter material.
  - Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:
  - Nitrile, Viton
  - Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
  - Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practise good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

Consistent with regulatory control requirements, storage and handling equipment and systems should be capable of preventing soil and groundwater contamination by liquid spills and vapor emissions. Leak detection systems and programs are recommended. Personnel handling, transferring or dispensing this product should be trained to respond immediately to any spills or leaks to prevent contamination of groundwater.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION
Physical State: Liquid
Colour: Yellow
Odour: Petroleum/Solvent
Odour Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION
Relative Density (at 15 °C): 0.72
Flammability (Solid, Gas): N/A
Flash Point [Method]: -40°C (-40°F) [ASTM D-56]
Flammable Limits (Approximate volume % in air): LEL: 1.4 UEL: 7.6
Autoignition Temperature: N/D
Boiling Point / Range: > 30°C (86°F)
Decomposition Temperature: N/D
Vapour Density (Air = 1): 3 at 101 kPa
Vapour Pressure: 53.2 kPa (400 mm Hg) at 20 °C
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 1
Solubility in Water: Negligible Negligible for the hydrocarbon components. Ether oxygenates are significantly more soluble.
Viscosity: <1 cSt (1 mm2/sec) at 40 °C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION
Freezing Point: N/D
Melting Point: N/A

SECTION 10 STABILITY AND REACTIVITY
STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Heat, sparks, flame, and build up of static electricity.

INCOMPATIBLE MATERIALS: Alkalies, Halogens, Strong Acids, Strong oxidisers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Conclusion / Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td></td>
</tr>
<tr>
<td>Acute Toxicity: (Rat) LC50 &gt; 5000 mg/m3</td>
<td>Minimally Toxic. Based on test data for structurally similar</td>
</tr>
</tbody>
</table>
(Vapour) materials. Test(s) equivalent or similar to OECD Guideline 403

Irritation: No end point data for material.
Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

Ingestion
Acute Toxicity (Rat): LD50 > 5000 mg/kg
Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401

Skin
Acute Toxicity (Rabbit): LD50 > 2000 mg/kg
Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402

Skin Corrosion/Irritation (Rabbit): Data available.
Irritating to the skin. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404

Eye
Serious Eye Damage/Irritation (Rabbit): Data available.
May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405

Sensitisation
Respiratory Sensitization: No end point data for material.
Not expected to be a respiratory sensitizer.

Skin Sensitization: Data available.
Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406

Aspiration: Data available.
May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material.

Germ Cell Mutagenicity: Data available.
Caused genetic effects in laboratory animals, but the relevance to humans is uncertain. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 475 476

Carcinogenicity: Data available.
Caused cancer in laboratory animals. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451

Reproductive Toxicity: Data available.
Caused damage to the fetus in laboratory animals, but the relevance to humans is uncertain. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 416 421

Lactation: No end point data for material.
Not expected to cause harm to breast-fed children.

Specific Target Organ Toxicity (STOT)
Single Exposure: No end point data for material.
May cause drowsiness or dizziness.

Repeated Exposure: Data available.
Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 410 412 453

TOXICITY FOR SUBSTANCES

<table>
<thead>
<tr>
<th>NAME</th>
<th>ACUTE TOXICITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>Inhalation Lethality: 4 hour(s) LC50 17.8 mg/l (Vapour) (Rat); Oral Lethality: LD 50 3.5 g/kg (Rat)</td>
</tr>
</tbody>
</table>

OTHER INFORMATION
For the product itself:

Laboratory animal studies have shown that prolonged and repeated inhalation exposure to light hydrocarbon vapours in the same boiling range as this product can produce adverse kidney effects in male rats. However, these effects were not observed in similar studies with female rats, male and female mice, or in limited studies with other animal species.
Additionally, in a number of human studies, there was no clinical evidence of such effects at normal occupational levels. In 1991, The U.S. EPA determined that the male rat kidney is not useful for assessing human risk. Vapour concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias.

Gasoline unleaded: Carcinogenic in animal tests. Chronic inhalation studies resulted in liver tumours in female mice and kidney tumours in male rats. Neither result considered significant for human health risk assessment by the United States EPA and others. Did not cause mutations in-vitro or in-vivo. Negative in inhalation developmental studies and reproductive tox studies. Inhalation of high concentrations in animals resulted in reversible central nervous system depression, but no persistent toxic effect on the nervous system. Non-sensitizing in test animals. Caused nerve damage in humans from abusive use (sniffing).

**Contains:**
- **BENZENE:** Caused cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders in human studies. Caused genetic effects and effects on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus and cancer in laboratory animal studies.
- **CUMENE:** Repeated inhalation exposure of cumene vapour produced damage in the kidney of male rats only. These effects are believed to be species specific and are not relevant to humans.
- **n-Hexane:** Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown.
- **TOLUENE:** Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects.
- **TRIMETHYLBENZENE:** Long-term inhalation exposure of trimethylbenzene caused effects to the blood in laboratory animals.
- **ETHYLBENZENE:** Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

**IARC Classification:**

The following ingredients are cited on the lists below:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>List Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>GASOLINE</td>
<td>86290-81-5</td>
<td>3</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>3</td>
</tr>
<tr>
<td>BENZENE</td>
<td>71-43-2</td>
<td>1</td>
</tr>
<tr>
<td>CUMENE</td>
<td>98-82-8</td>
<td>3</td>
</tr>
</tbody>
</table>

---REGULATORY LISTS SEARCHED---

1 = IARC 1
2 = IARC 2A
3 = IARC 2B

**SECTION 12 ECOLOGICAL INFORMATION**

The information given is based on data available for the material, the components of the material, and similar materials.
ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

Majority of components -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

- Low molecular wt. component -- Moderate potential to migrate through soil.
- High molecular wt. component -- Low potential to migrate through soil.

Components --

PERSISTENCE AND DEGRADABILITY

Biodegradation:

- Material -- Expected to be inherently biodegradable
- Components --

Atmospheric Oxidation:

- Majority of components -- Expected to degrade rapidly in air

BIOACCUMULATION POTENTIAL

Majority of components -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

ECOLOGICAL DATA

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Duration</th>
<th>Organism Type</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic - Acute Toxicity</td>
<td>96 hour(s)</td>
<td>Fish</td>
<td>LL50 1 - 100 mg/l: data for similar materials</td>
</tr>
<tr>
<td>Aquatic - Acute Toxicity</td>
<td>48 hour(s)</td>
<td>Daphnia magna</td>
<td>EL50 1 - 100 mg/l: data for similar materials</td>
</tr>
<tr>
<td>Aquatic - Acute Toxicity</td>
<td>72 hour(s)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>EL50 1 - &gt;1000 mg/l: data for similar materials</td>
</tr>
<tr>
<td>Aquatic - Chronic Toxicity</td>
<td>21 day(s)</td>
<td>Daphnia magna</td>
<td>NOELR 1 - 10 mg/l: data for similar materials</td>
</tr>
<tr>
<td>Aquatic - Chronic Toxicity</td>
<td>72 hour(s)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>NOELR 1 - 100 mg/l: data for similar materials</td>
</tr>
</tbody>
</table>

Persistence, Degradability and Bioaccumulation Potential

<table>
<thead>
<tr>
<th>Media</th>
<th>Test Type</th>
<th>Duration</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Ready Biodegradability</td>
<td>28 day(s)</td>
<td>Percent Degraded &lt; 60: similar material</td>
</tr>
</tbody>
</table>

SECTION 13

DISPOSAL CONSIDERATIONS
Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

**DISPOSAL RECOMMENDATIONS**

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

**Empty Container Warning**

Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal by suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

**SECTION 14 TRANSPORT INFORMATION**

**LAND (ADG)**

<table>
<thead>
<tr>
<th>Proper Shipping Name:</th>
<th>GASOLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous Goods Class/Subsidiary Risk:</td>
<td>3</td>
</tr>
<tr>
<td>Hazchem Code:</td>
<td>3[Y]E</td>
</tr>
<tr>
<td>UN Number:</td>
<td>1203</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
</tr>
<tr>
<td>Label(s):</td>
<td>3, EHS</td>
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<tr>
<td>Special Provisions:</td>
<td>243</td>
</tr>
</tbody>
</table>

**SEA (IMDG)**

<table>
<thead>
<tr>
<th>Proper Shipping Name:</th>
<th>MOTOR SPIRIT or GASOLINE or PETROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class &amp; Division:</td>
<td>3</td>
</tr>
<tr>
<td>EMS Number:</td>
<td>F-E, S-E</td>
</tr>
<tr>
<td>UN Number:</td>
<td>1203</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>Yes</td>
</tr>
<tr>
<td>Label(s):</td>
<td>3</td>
</tr>
<tr>
<td>Transport Document Name:</td>
<td>UN1203, MOTOR SPIRIT or GASOLINE or PETROL, 3, PG II, (-40°C c.c.), MARINE POLLUTANT</td>
</tr>
</tbody>
</table>

**AIR (IATA)**

<table>
<thead>
<tr>
<th>Proper Shipping Name:</th>
<th>MOTOR SPIRIT or GASOLINE or PETROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class &amp; Division:</td>
<td>3</td>
</tr>
<tr>
<td>UN Number:</td>
<td>1203</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
</tr>
<tr>
<td>Label(s) / Mark(s):</td>
<td>3</td>
</tr>
<tr>
<td>Transport Document Name:</td>
<td>UN1203, GASOLINE, 3, PG II</td>
</tr>
</tbody>
</table>

**SECTION 15 REGULATORY INFORMATION**

This material is considered hazardous according to Australia Model Work Health and Safety Regulations.

Product is regulated according to Australian Dangerous Goods Code.
Poison Schedule number allocated by the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act.

POISON SCHEDULE NUMBER: S5

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories: AICS, DSL, KECl, PICCS, TCSI

SECTION 16 OTHER INFORMATION

KEY TO ABBREVIATIONS AND ACRONYMS:

N/D = Not determined, N/A = Not applicable, STEL = Short-Term Exposure Limit, TWA = Time-Weighted Average

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

H224: Extremely flammable liquid and vapor; Flammable Liquid, Cat 1
H225: Highly flammable liquid and vapor; Flammable Liquid, Cat 2
H226: Flammable liquid and vapour; Flammable Liquid, Cat 3
H303: May be harmful if swallowed; Acute Tox Oral, Cat 5
H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1
H312: Harmful in contact with skin; Acute Tox Dermal, Cat 4
H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A
H320(2B): Causes eye irritation; Serious Eye Damage/Irr, Cat 2B
H332: Harmful if inhaled; Acute Tox Inh, Cat 4
H335: May cause respiratory irritation; Target Organ Single, Resp Irr
H336: May cause drowsiness or dizziness; Target Organ Single, Narcotic
H340(1B): May cause genetic defects; Germ Cell Mutagenicity, Cat 1B
H350(1A): May cause cancer; Carcinogenicity, Cat 1A
H350(1B): May cause cancer; Carcinogenicity, Cat 1B
H351: Suspected of causing cancer; GHS Carcinogenicity, Cat 2
H361(D): Suspected of damaging the unborn child; Repro Tox, Cat 2 (Develop)
H361(F): Suspected of damaging fertility; Repro Tox, Cat 2 (Fertility)
H372: Causes damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 1
H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2
H401: Toxic to aquatic life; Acute Env Tox, Cat 2
H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2
H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:
Section 09: Solubility in Water information was modified.
Section 07: Handling and Storage - Storage Phrases information was modified.
Section 06: Spill Management Recommendations - Default information was modified.
Section 11: Tox List Cited Table information was modified.
Composition: Component Table information was modified.
Hazard Identification: Physical/Chemical Hazard information was modified.
GHS Precautionary Statements - Prevention information was modified.
Section 08: Section 8 Footnotes information was added.
Hazard Identification: Environmental Hazard information was added.
Section 12: Ecological Information - Mobility information was added.
Section 12: Ecological Information - Biodegradation information was added.

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DGN: 2000102XAU (1010137)

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End of (M)SDS